



STRIVE.

"There is a joy in striving greater than the strife,
A joy in living greater than the life."

THE marvellous amount of work achieved by some whose names are household words often creates astonishment in the minds of those who wonder at success without tracing its secret springs; nothing indeed so tends to inspire a feeling almost akin to awe than the contemplation of the *labours more abundant* of our celebrated men.

Night after night a statesman will clothe high thought in equal language, his range of subject being only less remarkable than his power and variety of expression. One such effort would have both satisfied and exhausted many a weaker combatant, and yet we turn to the *Times* and read the record of these nightly feats entirely as a thing of course. Here begins the wonder which is deepened when we reflect that this same man is a conspicuous guest at public celebrations, no mean authority in literature, personally directs the education of his children, and as a devoted churchman is ready to advocate, in words of silver eloquence, the grand humanities of the age in which we live.

The vision of one held in reverence by men of every shade of politics rises before the mind, and yet the marvel still increases, knowing, as we do, that this is but a single specimen of that long array, who, as much by their productive energy as by their brilliant talent, have made their respective countries famous.

Genius sometimes goes for a great deal—genius also sometimes goes for very little. Admit the theory of genius, and grant that two with unequal powers, though under identical circumstances of discipline and education, would not reach the same goal together; this will not account for the power which is visibly displayed before our eyes.

A near, if not perfect analogy exists between the physical and mental gymnast—that strong, well-knit performer on whom the crowd gazes with open mouth is doing things which no spectator without similar preparation could attempt—long practice (we know of what we speak), and everlasting training have made him a different person. His body has gone to school. His arms and legs have acquired more muscle, his whole frame a new constitution; for that reason he can venture on still bolder evolutions and more dexterous athletic exercises; but for that reason his further industry would be rewarded with a broken neck.

It is not designed in this brief article to ring the changes on the advantages of study, nor to pronounce a didactic sermon; rather from the above let us take our text, and preach the gospel of goodwill and encouragement to those who have entered on their studies.

These intellectual flights already mentioned may be accounted for, strange as it may appear, almost on physical grounds. The mind has gone to school—its wings are stronger, its organization changed. It can think, learn, grasp, retain, set in order, and accumulate in a manner possible to no other mind not having undergone the ordeal of the same cultivation. It has also acquired new powers of concentration, endurance, and perseverance; it has inherited from previous struggle all that the conservation of force can bestow—the five talents are now ten.

We believe as firmly as we do our own existence that

none can guess the capabilities that lie within them—none can gauge the measure of their possibility; none can work out the ancient motto, "Know thyself." We hold, moreover, that thousands are injured mentally for life by lack of a few words of kindness. The dawning intellect is withered by neglect or ridicule, under which disastrous influence that which might have been most fair and lovely sinks into commonplace, while surrounding cares, together with the rude battle for our daily bread, too often hasten the catastrophe, and wipe out the lingering traces of the intellectual life.

Students of the scarcely opened session, the gate of knowledge is before you; strive to enter in. We bid you hearty welcome.

You have come to London, and here you naturally expect a solemn warning against its general wickedness and snares. Never were you more mistaken. It, like other capitals, has manifold and great temptations, infinitely counterbalanced by manifold and great advantage. We are no advocates for that false and dreary moralizing which sees blue ruin in a glass of bitter, nor do we dread that the vexed earth should open and engulf the perpetrator of a Sunday walk. Far otherwise. Take without fear the good the gods provide; use, but not abuse, all pleasures which the heart may sanction: the stage, the dance, the concert need not be neglected, and the more social intercourse the better. Time will come when such fascinations lose their charm, for youth is a warmer colourist than Etty.

Only remember well, with stern and unflinching hand to draw the line which separates striving from enjoyment. Never again will the world outside wait upon your leisure, nor ever in future will household and position cares respectfully withhold intrusion.

Bear with us while for a moment we exhibit a most homœopathic dose of classics. The word from which our motto is taken is one of the strongest expressions in the Greek. The passage literally translated (*Ἀγωνίζεσθε εἰσελθεῖν*) means *agonize to enter in*. Nothing short of this will do. No dreamy, pleasing, dilettante striving will take us through the strait gate either of the world to come or this.

Some amongst us—neither statesmen, poets, nor politicians, but simply working pharmacutists—are splendid illustrations of our theory. They have not waited for a stray fluke of glory which might waft them into honour, but have accepted the lines which Providence has ordered, though sometimes they may not seem to have fallen in pleasant places.

They have thought, and wisely, that there are memories other than those enshrined in the old Abbey of Westminster which are held in loving reverence, and therefore they have striven. For them the same dull routine of work; for them the allurements of Town life—they have gone home in full consciousness of the strife well ended, and as the pebble thrown into the tranquil stream makes rings and outer-rings, until they mingle and are lost in the expanse of water, so they have returned, spreading their contagious happy influence. The stern necessities of business have not been neglected; not the fussiest of the ignorant has a better retail, nor can the most self-contented and contemptuous despiser of *all that sort of thing* show larger profits on his wet and dry.

Meanwhile, men of this class give a tone and character to their surroundings; they honour pharmacy far more than with our present wretched want of legislation it can possibly honour them. Members of other, yet kindred learned associations, not unknown in the world of science, able and willing, on the contrary, to advance its interests: sharers

often directors, of the social amenities of their own locality, and centres of all excelsior progress, they stand the living exemplars of what it is to strive. Nor does this exhaust the gain: add the deep love of the charmed circle of the home; add also, the gift of friendship—God's richest earthly blessing. Now draw the contrast, and deduct from twelve drifting months the inevitable total—a red lamp affixed to a little dirty shop, in front a row of capsules, and in the back a starving wife.

Let no one accuse us of weaving fantastic sentences, we dare to put down on paper what is so painfully and prosaically true. Let not the snows of next December find you a no stronger athlete than when you read these lines. Courage in this January of a new-born year! Work kills no man—hunger does. Milton's cherub was miserable, not from having fallen, but from being weak. Strive, and strength will come. Would that we could coin the most expressive form of words in order to convey this thought. Let the soldier strive, not only more bravely, but more easily, will he nerve himself to battle; let the scholar strive, not only will he glean fresh knowledge, but his mind will grow; nay, rather take the patient, plodding husbandman—let him strive, and with stronger arm will he grasp the sickle and reap the golden harvest.

"PRESCRIPTIONS CAREFULLY PREPARED."

THERE has been some good fencing between a medical writer and a pharmaceutical chemist in that well-known arena—the correspondence department of the *Lancet*. The chemist has boldly come forward as the champion of his class and, in our opinion, has successfully parried the ugly cuts of the medical combatant. To drop metaphorical language, our contemporary has brought certain serious charges against dispensing chemists, and a pharmaceutical correspondent has retorted in two well-considered and well-written letters. The articles and letters may be easily cast into the form of a dialogue, which will give all the essential points of the discussion.

MEDICUS (oracularly).—Amongst the many improvements which have taken place in the practice of medicine, one of no little importance is this, that physicians of the present day for the most part write a legible hand. The miserable scrawls which formerly puzzled students and druggists to decipher, and which only looked as if a fly had dipped his legs in ink and then waddled over a sheet of paper, are only now to be seen in museums. But with this improved penmanship, the responsibility of the compounder of the prescription increases; for where all is clear, the blame of any mistake which may be made in the preparation of the medicine will not be able to be shifted on the shoulders of the prescriber. Now there are many circumstances which lead me to think that druggists, as a body, are not as careful in "preparing prescriptions" as they should be. For example, I believe that if the same prescription were made up on the same day at twelve different chemists' shops between the Marble Arch or Charing-cross and Mile-end, not more than three of the resulting mixtures would correspond, unless the most commonplace drugs had been ordered.

CHEMICUS.—Your remarks surprise me. I won't presume to controvert what you say as to the improved caligraphy of the profession, although, if as many prescriptions passed through your hands daily as I have the pleasure of seeing, you might possibly think the flies of former days were not all dead, and that the trace of their "waddling" was still to be seen in other places as well as in museums. Neither is it my wish to shirk any part of the increased responsibility which you say now attaches to dispensers; for whether it be that the sudden lighting of a fly on a newly-written prescription renders it necessary to interpret a word by means of its context, or whether it be that a prescriber (all men are fallible) may have had his attention distracted

by a loquacious patient, I hold that the man who is not capable of detecting such a mishap, and having detected it, does not take proper means (generally by reference to the writer) to prevent mischief, is unfit to perform the duties of a dispenser. And I can bear testimony to the uniform kindness, I may almost say *thankfulness*, with which the very highest members of the profession answer inquiries as to doubtful points in their prescriptions. I dismiss this question of caligraphy, and will at once turn to your grave assertion "that druggists, as a body, are not as careful in 'preparing prescriptions' as they should be;" and that "if the same prescription were made up on the same day at twelve different chemists' shops between the Marble Arch or Charing-cross and Mile-end, not more than three of the resulting mixtures would correspond, unless the most commonplace drugs had been ordered." Now, Sir, I believe this assertion to be entirely without foundation, and I am as willing to give you as wide a range of "commonplace drugs" as the old London and new British Pharmacopœias will afford. If physicians choose to order specialties, without designating from whom they are to be obtained, you may be right; otherwise I say unhesitatingly that the majority, on the examination of the mixtures, will be on the side of uniformity. I would not dispute for a moment the greater care exercised by some chemists, or the want of it perhaps in some shops where that troublesome "fly" of which you speak has not yet become extinct; but I do feel that we, the chemists, have within the last quarter of a century made a corresponding advance with the higher orders of the medical profession. It has been brought about by union amongst ourselves for the advancement of scientific knowledge, for the detection and exposure of adulterations in the substances wherewith we have to deal, and for such an interchange of ideas as gives to the whole body of our profession, and through them to the public, the advantages of individual research and experience.

MEDICUS.—Pardon me for reminding you that you seem to rely more on the *tu quoque* style of argument than on any proof of the incorrectness of my observations. You hint that some physicians still write unintelligibly, but state that you won't controvert my remarks on "the improved caligraphy of the profession."

CHEMICUS.—Stop, Sir; you do me an injustice in saying that I rely "on the *tu quoque* style of argument." In the first place, your assertion that prescribers write so much more legibly now than they did formerly, was no charge against us, and I did not treat it as such, although unable to agree with you as to the improvement being almost universal. I distinctly disclaimed enlisting the absence of it in some cases as an excuse for inaccuracy on our part.

MEDICUS.—Well, let us drop this subject of caligraphy, and discuss the more important one of careless dispensing. You assert that my charge is "entirely without foundation." Now, I maintain that what I said is correct. Within almost a few days such instances as these have been brought under my observation:—A prescription was written for pig's pepsine, and that of a particular maker was distinctly ordered to be used. The patient goes to one of the most respectable houses in London; the dispenser in which substitutes the pepsine manufactured by his own firm for that ordered, and then notifies the same on the prescription by crossing out ****, and writing **** over it. Again, two drugs in rather small quantities are directed to be mixed with an ounce of oil of theobroma. Prepared by an old-established firm, the pot, when opened at the end of twenty-four hours, is found filled by a thick oily fluid, which is useless for the purpose required. When the prescription is made up at a second respectable house, a solid substance is sent such as the prescriber intended. Once more: two or three drugs mixed with a few drops of glycerine in the manner directed form rather large and somewhat soft pills, such as the patient was told to expect. The same prescription taken to a different establishment leads to the production of a series of small bullets, which no amount of trituration in the stomach would render soluble.

CHEMICUS.—Now you come to specific cases; and your first is one in which you say that in one of the most respectable houses in London the dispenser struck out the name of the special maker of pig's pepsine inserted by the prescriber, and substituted his own. I cannot admit this either as a proof of carelessness or ignorance, and I leave

you, knowing all the circumstances, to class the act as you will; but having substituted his own preparation for that which was originally ordered, I think the dispenser did his best to insure uniformity in the mixture ever after, inasmuch as, according to my idea of pharmaceutical ethics, nine chemists out of ten would make a point of using the particular maker's pepsine indicated. You next speak of the soft and hard ointments made with the oil of theobroma. I gave you the contents of the British Pharmacopœia for your purposes, and this oil was made official by the issue of that book during the present year. It is described as "a concrete oil obtained by expression and heat from the ground seeds of *Theobroma cacao*," and "of the consistency of tallow;" official name, "*oleum theobromæ*." You may not be aware that for many years an oil of cocoa-nut, *Cocos nucifera*, has been prescribed, erroneously, I believe, under the name of "*oleum cacao*." It is tolerably hard in winter, very soft in summer, and requiring always a long time to harden after being rubbed into ointment. Did your prescriber use the word "*theobroma*" or "*cacao*?" I can say nothing of your pill mass, as you do not name the ingredients to be incorporated by the glycerine; but this I must say, that if you refuse any discretion to dispensers in making pills, your patients will often be sadly disappointed, sometimes dismayed, on opening their boxes. The pill is perhaps, of all forms of medicine, the one with the manipulation of which prescribers are least acquainted.

MEDICUS.—You appear to misunderstand the gist of my observations. I say that when the physician unmistakably orders one particular chemist's drug in his prescription, it is a most improper act for the dispenser to substitute a preparation by a different maker. It is not improving the matter to note the unwarrantable alteration on the prescription; for only children believe that by confession a fault is converted into a virtue. As I said at first, so I repeat, that "*oil of theobroma*" was ordered. It is unnecessary to tell medical men about oil of cocoa-nut, and its conditions under different temperatures. The original prescription is headed "*Brit. Phar.*," and the words "*olei theobromæ*" are as distinct as pen and ink and a practised hand can make them. The date is the 16th December, 1867. But supposing "*oleum cacao*" had been ordered, our argument would still stand, inasmuch as the complaint is that the same prescription taken to two different old-established chemists leads to the production of two different compounds. This remark applies equally to the pill mass. From the same receipt one chemist sends out small pills literally as hard as bullets, while another druggist supplies rather soft boluses.

CHEMICUS.—I may have something to say upon this subject on a future occasion. Have you any further charges against our body?

MEDICUS.—Oh, yes; one that you cannot controvert. Your assistants will seldom take pains to write clearly the directions on the labels. In the case of consulting physicians, many are found to order mixtures in a rather concentrated form. It is a convenient plan, and with moderate caution has no disadvantage, though it is not a very popular one with the dispenser. Such a prescription will end with a distinct direction that it is to be labelled thus: "One teaspoonful in a wineglassful of water every six hours." The patient is ordered to persevere with this medicine until he is seen again at the end of two or three weeks. Well, he goes to his druggist, gets the medicine, finds it properly labeled, and all is right. But at the end of a week the supply is exhausted. The patient has his prescription made up again, and this time it is sent home labeled: "The drops as before." Now, I have no hesitation in saying that this is a most unjustifiable proceeding, for it is one fraught with great danger. The chemist is told by the physician how the medicine is to be labeled; the direction is given as plain as a pikestaff. Yet the dispenser, to save himself a little trouble, deliberately refuses to do what he is told, and runs the risk of injuring, if not of poisoning, his customer. I maintain that in a case of this kind the druggist has no choice as to what he is to do. He is told what drugs to use, and the quantities required; he is also told how to direct the resulting medicine. Whether the prescription be made up once or twenty times, the rule applies the same. It is quite unnecessary to show how easily a mistake may be made if the dose of medicine given from a bottle labeled "The mixture as before" be poured out by a different hand

to that which has administered the previous doses. It may not, however, be altogether useless to remark, that if any mistake should occur under these circumstances, the dispenser will find himself in a very unpleasant position. The fact, is that it is impossible to exercise too much caution in compounding medicines. All should be so well done, and all should be so distinct, that there can be scarcely any possibility of a mischance. It is said that an accident soon happens; but in nine cases out of ten, it will be found that the so-called accident has been the natural result of gross carelessness.

CHEMICUS.—With regard to labels, as a rule, I only see my own, and cannot tell what is the common practice; but I feel so strong an objection to "the mixture as before," that I would second you in every effort to enforce a constant repetition of full directions. Even this, however, is a matter in which a dispenser must be allowed a certain discretion.

MEDICUS.—So the principle on which you excuse the substitution of the label "The drops as before," for the direction ordered, is simply that it "is a matter on which a dispenser must be allowed a certain discretion." Probably stronger evidence as to the importance of my remarks on this subject could not be adduced than you have thus supplied. It is this pernicious practice of the dispenser using his "discretion," instead of doing as he is told, that is so reprehensible. If the prescription is unintelligible, if it contains errors, if the mixture ordered cannot be prepared, it is the duty of the chemist either to decline having anything to do with it, or else to communicate directly with the physician. But in the cases to which I particularly alluded there is no difficulty. The bottle is probably labeled on the first occasion, and it is only subsequently that the dispenser deliberately refuses to follow his instructions.

CHEMICUS.—The "pernicious practice of the dispenser using his discretion" has two different aspects. It is said that all the talent and skill of the physician culminate in his prescription. I submit that for the benefit of the patient you must go a step further: that if the physician's prescription is not accurately carried out by the dispenser, it might as well never have been written; and if you canvass the Fellows of the College, I feel assured you will find them all anxious that their medicines should be prepared by men who not only have, but also use the necessary discretion, *not in altering*, but in interpreting their instructions. I believe you and I are agreed as to the necessity for continually repeating directions for the administration of medicine, only you apparently assume that I want too much latitude. When I said regarding labels, "even this, however, is a question on which a dispenser must be allowed a certain discretion," I simply meant that in cases which occur to a dispenser almost daily, he finds the direction given as to the time of taking medicine, one or perhaps five years previously, utterly inapplicable to the present repetition, and then if he be a careful man he will write somewhat thus: "The mixture as before, a fourth part for a dose." Frequently one pill only is ordered, "to be taken immediately." When the patient chooses to have a dozen or two as a stock medicine, the first direction would be nonsense. Sometimes on a second visit a physician gives verbal instructions to increase or lessen the dose of a mixture. The patient tells all this to his chemist, and what can the label be then? If you could spend your morning in your consulting-room and your afternoon in a dispensary, you would see both sides of the question.

MEDICUS.—Your remarks are not apposite to my specific complaint respecting "the drops as before." You simply urge the importance of doing what I complain is often not done: "If the physician's prescription is not accurately carried out by the dispenser, it might as well never have been written." Exactly my opinion. You give the whole pith of the matter. Whose fault, then, is it that the prescription "is not accurately carried out"? It is unnecessary to say more. All that we prescribers want an assurance of is this: Supposing a prescription to be distinctly and correctly written in every respect, will it be prepared alike, and will the medicine be directed as the prescriber has ordered by every respectable chemist into whose hands the receipt may fall? If you will use your great influence to ensure such a desirable result, both physicians and patients will be much indebted to you.

CHEMISTS.—It seems to me that, after all, your criticism simply points to the necessity for uniform education and qualification being required of all men who undertake the compounding of medicines. Render these compulsory, and it will be the nearest approach attainable to making men careful by Act of Parliament.

MEDICS.—Not at all. The matters now in dispute are not so much a question of education as of care in keeping the best drugs and chemicals, as well as of great pains to prevent the possibility of any accident to the sick. It is solely in the interests of the latter that I have spoken; and feeling assured that my criticism has been just, I trust it may have a good effect.

CHEMISTS.—I cannot agree with you that the subject of our discussion is not "a question of education;" because a man must be educated to know good drugs from bad, to know their value and their danger, the necessity for all care in their preparation, and in giving instructions for their use when prepared. Education may not make all men honest; but at least it gives them a pride in their profession, and so tends to make them act honestly, even if the motive be self-interest only.

The discussion which we have endeavoured to reproduce in the above dialogue includes the contributions to the *Lancet* of last Saturday. The medical critic had the last word, and the defence of the pharmacist will doubtless be strengthened by further arguments in a third letter.

END OF THE WHOLESALE AND EXPORT DRUG COMPANY.

ON the 27th ult. an Extraordinary General Meeting of the Shareholders of the Wholesale and Export Drug Company was held at Radley's Hotel, Blackfriars, for the purpose of considering the advantages of dissolution. The resolutions passed by a large majority at a previous meeting were confirmed, and the Japanese ceremony of "the happy dispatch" was virtually consummated. The Directors saw the Court of Chancery in the distance, and wisely suggested a voluntary winding-up of the Company. The Shareholders adopted the suggestion, and the honest and earnest attempt to carry on a wholesale drug business on the limited liability principle has come to an end.

An explanation of motives which impelled the Directors to counsel dissolution is given in the concluding number of the late Company's Monthly Circular. We extract from it the following passages:—

"It is difficult to conceive a more disagreeable task than having to acknowledge that an undertaking which appeared so promising in theory should, after two and a half years' practical testing, be proved a failure. Objectionable as it is to make such an admission, the Directors consider they would be unfaithful to their trust if they shirked that duty, and with deep regret they record the fact. They might have consented to a more speculative proceeding, and so, perhaps, have sacrificed the whole of the capital by reckless trading, but, being influenced by the principle that has always guided them, they determined openly to declare their defeat, and so enable investors to receive the fullest amount possible of the assets. They deplore the necessity for staying business, the more so as no blame can be attached to any individual, or attributed to any particular cause. The principle upon which the Company was instituted is as sound and good now as then, but a concatenation of circumstances in commerce, and a general want of faith in the public mind prevented that combination of the trade which is essential to the co-operative principle. Want of capital has been the great stumbling-block in the way to success. The strict integrity of the Directors cannot be impugned; the indefatigable exertions of the manager and his assistant, Mr. G. Walker, have been most commendable, and but for the untiring zeal of the Messrs. Hedley, Stable, and Lewis, the Company would long since have closed its doors.

"In the opinion of many, the state of the Company is

comparatively healthy, and might yet be satisfactorily worked; but the Directors are impressed that, with the deficiency of the last two years' trading to be paid off, it would, under the most favourable circumstances, be four or five years before a dividend could be paid, and they are in possession of the fact that any litigious shareholder, either from vindictive or pecuniary motives, has it in his power to petition the Court of Chancery for a compulsory winding-up order; and by so doing the largest portion of the assets would flow into the pockets of the lawyers, and the shareholders would be deprived of their just rights. Then, to avoid this unnecessary expenditure, the Directors have suggested a voluntary winding-up under a liquidator of their own appointing, and, much as they regret the necessity, they believe by so doing they will be acting for the best interests of the shareholders, and preserve from tarnish the good name of the first Limited Drug Company."

Report

ON THE CONDITION AND PRACTICES OF THE VARIOUS CLASSES CONNECTED WITH The Drug Trade.

I. THE VERITABLE OUTSIDERS.

LET the buyer beware! Aye, and let the unfair dealer, the Coffinite, the Herbalist, the Sarsaparilla-seller, the Street-scamp beware! Whatever your pretext, it is our plainly-avowed intention to pierce it through and through in the interests of the just vendor of drugs and chemicals.

Fully impressed with the truth of the fact that in many of the poorer districts of this metropolis, as well as in provincial towns, there are numerous well-conducted, respectable establishments upon which lies the necessity of squaring their practice with the capacity of their customers' purses, we nevertheless are quite sure that, in those very districts where the artisan, and the poorer classes generally, ought to have their drugs and chemicals supplied to them of pure quality and low price, it is in these very places where people are, in the name of economy, fleeced and ensnared.

Is it less than a crime—a very grave crime—for an ignorant boor who purchases a basketful of withered herbs from Covent Garden Market, and, placing them in a window, to write up above his shop-front the word "Herbalist," as a trap to catch the ignorant and the unwary? These unthinking folk enter the place believing they are about to get a simple yet efficacious nostrum at a low price. Nothing of the kind. The exhibited "simples" are but a delusion and a mockery. The purchaser gets for his money some deleterious concoction which is calculated to materially, and mayhap permanently, injure his constitution.

We make no war upon the skilled vendor, the fair dealer, the duly qualified practitioner; but it is our intention to lash unsparingly the impostor, whatever may be his professions—philanthropic or otherwise.

The great centres of the vile traffic in pseudo-drugs and chemicals, if we may use the phrase, are the Seven Dials, St. Giles's, the New Cut, Lambeth, the Brill, Somers' Town, Fetter-lane, and last, not least, the English Ghetto, Petticoat-lane, in which strong-smelling thoroughfare the Herbalist, the Collinite, etc., although absent, are more than compensated for, by a swarm of noisy, ignorant charlatans of the gutter.

The New Cut in Lambeth, Surrey, is perhaps the great metropolitan stronghold for herbalists, medical halls and institutes; and upon a fine Sunday morning you may see a

dozen loud-voiced fellows bawling out the virtues of their pills, 'lixirs, corn-plasters, salves, and cough-drops. These gentry, are chiefly, we apprehend, emissaries from the "halls" and "institutes," and from the sarsaparilla shops which mostly are congregated in the adjacent Newington Causeway. With their horrid wares and their strident, sickening orations thereabout, these scamps dispute the footpath with costermongers, ironmongery, and the vendors of cut-down Wellingtons—hoots razed to the Blucher form.

Let us take a glance at one of these "Herbalist" depôts as we walk down the "Cut." It is not an inspiring sight. If any one place more than another demanded neatness, order, cleanliness, it is the place where medicines are sold. What do we find to be the case here? Dirt and disorder, and pompous stupidity superadded. In the window we observe a large tray divided into compartments, very roughly put together, and of a dirty hue. In the neighbouring shop there is a tray somewhat like the one before us. In this tray nails are contained; in the herbalist's tray, pills are found. The ironmonger's tray is a miracle of cleanliness in comparison with the herbalist's boxes. A big-boned "navigator" enters, and presently the herbalist thrusts his grimy fingers into one compartment of the tray, the one upon which there is a label "20 a penny," and hooks out a handful of nasty globules which the placard further informs us are "wind pills." To judge from the constant appearance of wind pills in the windows, one might draw the conclusion that the stomachic apparatus of the inhabitants must be in a chronic state of disarrangement.

Turning aside, however, for the present, from the herbalists, let us map out our subject. The first division of it, naturally is, that which comprehends Coffinites, Herbalists, Sarsaparilla-sellers, and Street "Medicine-men."

These are the disreputable hangers-on to an honourable calling—the fringe, or rather the frayed-edge of a noble occupation.

Let our transactions to-day be with the vagabond vendor. His haunt is principally the abode of modern Jewry, Petticoat-lane. To the East, then, on this dark, dirty, Sunday morning, when the atmosphere is composed of equal proportions of steam and soot, and when Sol has received his *congé* from the clerk of the weather for an indefinite period.

Arrived at our destination, we enter the narrow lane; it is choke full of people; we push on deftly; encounter the elbows and the odours of the rank-scented many; are stunned by the Babel of "Sheeny" English, Hebrew, and thick German Jew-speech. Keeping the centre of the roadway (for the men we are in quest of are stationed here), we pass the peppermint lozenge and clove-stick sellers, as foemen unworthy of our steel. We are in good time, for it is high Change in Petticoat-lane any hour between eight and one on the Sunday morning. We are soon made aware that, at the present wintry season, pectoral nostrums are in great demand. Rheumatism, however, is not far behind as an incentive to the purchase of street specifics. We halt before the stall of a red-headed hooked-nosed Hebrew, who informs "shentleman" that he has for sale "the pill of health, likewise the healing salve for rubbing in the joints in rheumatism, also the saccharum 'lixir." Hot cakes, for "costiveness and dyspepsia" are sold by the son of Judah, who also dispenses "mineral waters for the cure of every complaint." "Oh, how nice!" says Isaac, the proprietor, smacking his lips enthusiastically, "Oh, how nice! everybody asks for 'em." We thread our tortuous way through plate-powder, pipe-cleaners, silvering fluid, and dogs' collars, and come upon a somewhat incoherent man, from whom, with diffi-

culty, we gather that "if you want to prolong your life, and live to good old happy days, try the 'Merikin horehound candy." Elbowing our way through the thick crowd, we stop for a moment beside a hulking fellow, who holds in his arms a piece of hydraulic apparatus, painted bright red, which he hugs to his breast as though it were a great baby. "Now, gents," he repeats, with a monotonous whine, "try your lungs, try your wind. Dr. Ashley Cooper's watering-machine for trying the strength of the lungs. Have a penn'orth, sir?" He thrusts towards us a flexible tube, with a heavy glass tip, which he makes a show of wiping with a very equivocal piece of rag. Refusing his proffered tube, we pass on. "For boil and liver-complaints, scrape a small piece, the size of a nut. Take this fasting, the *fast* thing of a morning, masters. Also good for the inside, if took regular." This is the cry of an unwashed, unshaven, unkempt rustic—own brother, we should say, to that miserable-looking countryman, who makes his living by carrying about the unhappy owl, perched in a basket.

Always making headway through the adverse tide of vendors, purchasers, and loafers, we stop before a shop, at the door of which stands an unbarbered Hebrew, who, if he were a few years older, and a little more bent in the spine, might appear as the very prototype of Fagin, as depicted by the etching-needle of George Cruikshank. He is the proprietor of a strange-looking mart. Over the door, the legend runs—"Solomon Isaacs, poulterer." Exteriorly, however, there is nothing to justify this description of his trade. Overcoming, gradually, the impediments to locomotion from the ever-surging crowd, we get near the door, and, peeping in, behold a number of emaciated fowls, *sus. per coll.*, in the interior of the shop, above a very greasy counter, all scored by chopper and knife, and littered over with what, anatomically, would be called "intestines," but in the ordinary language of the poultry trade, and of the *cuisine*, are termed "giblets." The shop-front has been removed bodily, and from hasement to facia, the front of the shop is piled with cloth-caps, wide-awakes, and billy-cocks. "Here y'are, sort 'em out, and take 'em away at your own price," he shouts, pointing with his left hand to the rows of caps, whilst in his right he brandishes an old, greasy, hilly-cock. "Take it away vid you," he goes on. "You can have it cheap, its Burke's hat; who'll buy Colonel Burke's hat?" This is received with a general grin on the part of the bystanders—the allusion to the head-covering of the incarcerated Fenian leader being, considered very *apropos*.

Immediately in front of this energetic Semitic Arab, over against his co-religionist, Rachel Levy's, emporium for the sale and consumption on the premises of pickled cucumbers, onions, melons, heetroot, olives, and hard-boiled eggs, stands a stalwart figure. To judge from mere appearances and externals alone, an ethnologist might designate him as not of the Semitic race, but of the Saxon branch of the great Indo-Germanic family, indubitably. Had Nature been consulted in the matter of this hawny fellow's occupation, her reply would doubtless have been—"ploughman;" but as the vagabond in question appears to have acted upon certain instinctive yearnings towards an easy and irresponsible walk in life, his calling here to-day is "nomadic medicament vendor." Slung across his broad breast by an oleaginous leathern strap, whose several solutions of continuity are pieced out with string is what once was, and in its more reputable days, a dinner-tray. In one corner of this, the right-hand corner, and quite under the protection of the tray-owner's heavy fist, lies a very respectable mound of penny and halfpenny coins. We approach somewhat nearer; the "medicine-man" is at present busy serving his customers, and adding to the hulk of the bronze heap in the corner. We observe

what he has to sell. He has a few whisks of dried herbs, a quantity of slender, fluted cylinders, of a dirty-brown appearance, which—judging from the ease with which they ignite when the proprietor, in illustration of his remarks, sets fire to one—are of a composition closely allied to sealing-wax. These are for corns or warts, three sticks a penny. Warranted to cure corns, whether hard or soft, between or upon the toes, whether of recent origin or long-standing, immediately—or sooner! The “leading” article, however, is deposited in the place of honour, exactly in the centre of the tray. This heap is made up of a quantity of morsels, resembling neither the lozenge nor the jujube in form, but having a somewhat distant likeness to both. These are the celebrated cough lozenges, a panacea for all pectoral ailments. “They are composed of mint, peppermint, horehound, and *marsh-mallow*. They ease the cough, clears the voice, and gives a good flavour to the breath.” All this time the big *hakim* is dispensing samples of his specific to the bystanders, on each of whom he in turn casts a scrutiuising glance; which glance, if satisfactory as indicative of a possible purchaser, is followed by the presentation of a cough drop. A number of little boys who have boldly struggled to a front place before the tray, look wistfully at the belauded atoms, but are treated with complete indifference by the vendor, who makes it a rule to pass the drop high above their heads and far into the rear. He resumes: “They are a halfpenny an ounce, twopence the quarter of a pound.” His goods are eagerly bought; the bronze mound grows higher, broader, and heavier. “I’ve known him take five bob in one run,” whispers a bystander to his companion. Assuming a louder tone, mayhap, in consequence of the briskness of trade, the speaker, who is sufficiently fluent, though rather discursive, goes on to make a few preliminary remarks as to the right of every man to obtain a fair hearing in this enlightened country. “I want to know,” he says, “why the doctors and the chemis and druggis puts all their perscriptions into Latin and Greek? Why, only as a blind! What I sell here to-day is a better mixture and more sustenance in it than what you gets for a heavy price at the chemis and druggis shops. Bring all the gents from ‘Potheecaries’ all to me here. Ah! I should like to see the Collego of Surgeons before me now; I’d talk to ‘em.” In his excitement he hands round the “drop” with renewed vigour. “The chemis and druggis”—he continues—“the chemis and druggis has a fine shop, I know; plenty of big bottles and shiny counters, and lots of sealing-wax,—oh, lots of sealing-wax and nice clean paper to wrap their things in. But what’s the use of their shiny counter, d’ye know? Why, your money slips out of yer pockets and across the shiny counter into their tills almost afore you knows what you’ve asked for. There’s no one in this town cau sell an article like this. If you takes the drop, gentlemen, you wants no other medicine for coughs, colds, asma, or tightness of the chest. They ease the cough, clears the voice, and gives a good flavour to the breath. They are a halfpenny an ounce, and two-pence the quarter of a pound.”

Turn we our back upon this blatant humbug. Let us forge ahead, leaving Jewry with its foul smells, its abominations to all the senses, behind.

STORAGE OF PETROLEUM.

AS the local authorities throughout the United Kingdom have received orders to enforce the Act of 1862 for the Safe Keeping of Petroleum (25 and 26 Vict., cap. 66), and as several correspondents appear to be in doubt as

to the regulations which are laid down therein, we think it advisable to publish a brief abstract of the statute.

“Petroleum” as defined by the Act includes any product thereof that gives off an inflammable vapour at a temperature of less than 100° F.

For the purpose of guarding against any unnecessary risk of accident in the keeping of Petroleum, it is enacted that every vessel carrying Petroleum, on entering any harbour within the United Kingdom, shall conform to such regulations as to the place at which she is moored as may be issued by the harbour authority; for contravention of which the owner or master will incur a penalty not exceeding £20 for each day; and the harbour master may cause such vessel to be removed at the expense of the owner.

Not more than forty gallons of Petroleum is to be kept within fifty yards of a dwelling-house or building in which goods are stored, unless under license from the proper local authority. Any Petroleum so kept, in contravention of this provision, is to be forfeited, and the occupier of the premises to incur a penalty not exceeding £20 a day.

The local authorities granting licenses are thus defined:—

- (1) In the City of London, except as hereinafter mentioned, the Court of Lord Mayor and Aldermen of the said city;
- (2) In the metropolis, as defined by the Act of the Session of the eighteenth and nineteenth years of the reign of Her present Majesty, chapter one hundred and twenty, except the City of London, and except as hereinafter mentioned, the Metropolitan Board of Works;
- (3) In any Borough in England or Ireland, except as hereinafter mentioned, the mayor, aldermen, and burgesses, by the Council;
- (4) In any place in England or Ireland, except as hereinafter mentioned, within the jurisdiction of any trustees or improvement Commissioners, appointed under the provisions of any local or general Act of Parliament, the trustees or commissioners;
- (5) In any burgh or place in Scotland, except as hereinafter mentioned, within the jurisdiction of any Town Council, and not subject to the jurisdiction of police commissioners or trustees, the Town Council; but in any burgh or place in Scotland, except as hereinafter mentioned, within the jurisdiction of police commissioners or trustees exercising the functions of police commissioners under any general or local Act, the police commissioners or trustees;
- (6) In any harbour within the jurisdiction of a harbour authority, whether situate or not within the jurisdiction of any local authority hereinbefore mentioned, the harbour authority, to the exclusion of any other local authority;
- (7) In any place in England or Ireland in which there is no local authority as hereinbefore defined, the justices in Petty Sessions assembled, and in Scotland any two justices of the peace for the County.

Any two of the persons constituting the local authority may grant a license; but conditions may be annexed thereto, any violation of which will cancel the license.

The applicant for a license may appeal to the Secretary of State in Great Britain, or Lord-Lieutenant in Ireland, in case such license be refused, or against conditions imposed, and the Secretary of State or Lord-Lieutenant may grant the license or modify the conditions.

Any forfeiture or penalty for an offence against the Act may be enforced in England and Ireland upon summary conviction before any two justices; and in Scotland, upon summary conviction at the instance of the Procurator Fiscal, before any sheriff, or before any two justices in the country, or before the magistrates or any police magistrate of the burgh in which the offence was committed. One moiety of the forfeiture and penalty shall belong to Her

Majesty, and in England and Ireland the other moiety to the informer, unless the informer is a servant of the person informed against, in which case it shall be applied to such purposes as the justices may think fit; in Scotland the application of the second moiety shall in like manner be left to the discretion of the sheriff, justices, or magistrates.

Petroleum may be searched for in the same manner as Gunpowder under the 23 and 24 Vict., cap. 139. The authorised inspectors may enter the stores at all reasonable times of the day without previous notice, the penalty for obstruction being £5.

All powers given by this Act are in addition to previously existing powers, and nothing contained in it exempt any person from any penalty to which he would otherwise be subject in respect of a nuisance.

THE NEW VACCINATION ACT.

ON the 1st of January, the New Vaccination Act of 1867, came into operation, and all the old Vaccination Acts, viz.—those of 1840, 1841, 1853, and 1861, are superseded. Our able contemporary, the *British Medical Journal* thus explains the provisions of the New Act, having a different effect to those which are repealed, so far as they specially concern the medical profession:—

First, not only has the scale of fees payable to contractors for vaccination been altered, but the conditions under which those fees may be claimed have also been enlarged. Thus the fees to be hereafter payable under the Act of 1867 are, for every vaccination at an appointed station situate at or within one mile from the residence of the vaccinator or in the workhouse, not less than eighteen pence; and for every vaccination at a station more than one mile and less than two miles from the vaccinator's residence, not less than two shillings; and when the station is more than two miles distant from the vaccinator's residence, he is to be paid not less than three shillings for each case. Under the old Act the fees were eighteen pence for every case vaccinated at the residence of the contractor, or within two miles therefrom; and when exceeding that distance, half-a-crown; and these were the only two classes of fees which the statute made.

It must, however, be borne in mind that the various Boards of Guardians throughout the country are not limited to giving these small fees to their vaccinators, but an impulse is rather given in the opposite direction, for the Act declares that the payment shall not be less than those above stated, but it will be quite open to the Guardians to give a higher remuneration if they are so disposed—a great opening for liberal Boards.

Let us take a glance at the conditions upon which the fees under the new Act may be claimed. We may presume that, under the Act of 1853, the only condition was that of successful vaccination, and that the fulfilment of that condition entitled the contractor to the fee; but under the new Act that is entirely changed, for there are several conditions attached to the proper and legal fulfilment of the duties which a public vaccinator undertakes. First of all, all vaccinations must be performed either at an appointed station or the workhouse; they must also be primary vaccinations (though, under certain circumstances, a contractor may be paid for re-vaccinations); they must, except in certain cases, all be of persons resident in the vaccinator's district (though previously, if the vaccinated persons resided in the union, that was all that was required as far as residence is concerned); and, of course,

the contracts must have been approved by the Poor-law Board.

It will be seen from the above that the existing contracts throughout the country will have to be modified, and probably many of them will be annulled, and fresh ones entered into. The regulation as to certificates has been very considerably modified. Under the new law every public vaccinator is required to send, within twenty-one days of the successful performance of the operation, to the registrar a certificate *completely filled up and legibly written*, and for neglect, he is liable to a penalty of twenty shillings; he is also liable to a penalty of the same amount if he refuse to give the parent a duplicate certificate when required to do so. A like penalty also attaches to every medical practitioner, *even though he is not a public vaccinator*, who refuses to fill up and sign the certificate of successful vaccination when submitted to him by the parent. All these penalties may be recovered in a summary manner.

As an inducement to public vaccinators to perform with care the duties which they undertake, there is a supplementary payment provided by the Legislature in the shape of gratuities to be awarded by the Privy Council, which gratuities will, to deserving contractors, add one shilling per case to the amount which they will receive from the guardians of their union or parish.

MERCHANT SHIPPING ACT.

SCALE OF MEDICINES AND MEDICAL STORES.

Issued and caused to be published by the Board of Trade in pursuance of the Merchant Shipping Act, 1867.

Preparations from British Pharmacopœia, 1867.	Names of Medicines, Medicaments, &c.	Proportion for Ships carrying the under-mentioned No. of Men and Boys (for 12 months).		
		10 and under	11 to 20 incl.	21 and upw.
Copaiba	Alum	1 oz.	2 oz.	3 oz.
	Balsam of copaiba ..	4 oz.	8 oz.	12 oz.
	Bicarbonate of soda ..	8 oz.	12 oz.	16 oz.
*Mist. Sennæ Co. ..	Black draught	1 pt.	2 pts.	3 pts.
Lotio Hydrarg. Nigra ..	Black wash	1 pt.	2 pts.	2 pts.
	Carbolic acid	½ gal.	1 gal.	2 gals.
	Castor oil	1 lb.	2 lbs.	3 lbs.
Potassæ Tartras Acida ..	Cream of tartar	2 oz.	4 oz.	8 oz.
	Condy's Fluid	½ pt.	1 pt.	1 pt.
	Epsom salts	8 lbs.	6 lbs.	12 lbs.
Ess. Ment. Pip.	Essence of peppermint ..	—	1 oz.	2 oz.
Tr. Zingib. Fortior ..	.. .. . ginger	—	1 oz.	2 oz.
Liq. Plumbi Subacet. dil.	Goulard's extract	1 oz.	2 oz.	4 oz.
	Iodide of potassium	—	2 oz.	4 oz.
	Laudanum	2 oz.	4 oz.	8 oz.
Tr. Opii	Linseed meal	—	14 lbs.	25 lbs.
	Lunar caustic	½ oz.	¾ oz.	1 oz.
	Nitrate of potash	2 oz.	4 oz.	8 oz.
Argenti Nitras	Ointment, Basilicon	3 oz.	6 oz.	10 oz.
	.. .. . Mercurial	1 oz.	2 oz.	4 oz.
	.. .. . Simple	6 oz.	12 oz.	16 oz.
Ung. Resinæ	Olive oil	—	8 oz.	12 oz.
.. Hydrargyri	Opodeldoc	3 oz.	6 oz.	10 oz.
	Paregoric	4 oz.	6 oz.	8 oz.
	Pills, Blue	1 doz.	2 doz.	3 doz.
.. Simplex .. .. .	.. Cough	2 doz.	4 doz.	6 doz.
	.. Opium	1 doz.	2 doz.	3 doz.
	.. Purgine	3 doz.	6 doz.	8 doz.
Lin. Opii .. .. .	.. Mild	3 doz.	6 doz.	8 doz.
	Powder comp. Rhubarb ..	2 oz.	4 doz.	8 oz.

Tr. Camph. Co. .. ..	.. .. .	.. .. .	.. .. .	.. .. .
Pil. Hydrarg. .. 5 gr.	.. .. .	.. .. .	.. .. .	.. .. .
.. Ipecac. c. Scilla 5 gr.	.. .. .	.. .. .	.. .. .	.. .. .
.. Sapon. Co. .. 5 gr.	.. .. .	.. .. .	.. .. .	.. .. .
.. Coloc. c. Hyosc. 5 gr.	.. .. .	.. .. .	.. .. .	.. .. .
.. Rhei Co. .. 5 gr.	.. .. .	.. .. .	.. .. .	.. .. .
Pulv. Rhei Co. .. ..	.. .. .	.. .. .	.. .. .	.. .. .
.. Catechu Co. .. ..	.. .. .	.. .. .	.. .. .	.. .. .
.. Cret. Arom. .. ..	.. .. .	.. .. .	.. .. .	.. .. .
.. C. Opi .. .. .	.. .. .	.. .. .	.. .. .	.. .. .
.. Ipecac. Co. .. ..	.. .. .	.. .. .	.. .. .	.. .. .
Sp. Ætheris Nitrosi ..	.. .. .	.. .. .	.. .. .	.. .. .
Tr. Hyoscyami .. ..	.. .. .	.. .. .	.. .. .	.. .. .

Lin. Terebinthinæ ..	.. .. .	.. .. .	.. .. .	.. .. .

* Omit extract of liquorice, and substitute aromatic spirit of ammonia, 1 oz. to 1 pint of the mixture.

† As an antiseptic and deodorising agent for common use.

‡ For purifying drinking water when necessary.

§ Double the quantity above indicated to be taken to all tropical ports.

Particulars.	Scales of Medical Stores and Necessaries.	Proportion for Ships carrying the under-mentioned No. of Men and Boys (for 12 months).		
		10 and under	11 to 20 inclus.	21 and upwards.
Marked in English figs.	Adhesive plaster on unbleached calico in the case	1 yd.	2 yds.	3 yds.
	Lint	1 lb.	1 lb.	1 lb.
	Scales and weights ..	1 set.	1 set.	1 set.
	Graduated drop meas.	—	1	1
	Graduated 2 oz. meas.	—	1	1
	6 oz. bottles	1 doz.	1 doz.	1 doz.
	Corks for bottles ..	1 doz.	1 doz.	2 doz.
	Scissors	—	1 pair.	1 pair.
	Syringes	2	2	4
	Lancet	1	1	1
Leg and arm size ..	Abdomen ditto	1	1	1
	Bandages	—	6	6
	Calico	3 yds.	4 yds.	6 yds.
	Flannel	2 yds.	3 yds.	6 yds.
	Needles, pins, thread, and tape	—	1 paper.	1 paper.
	Splinters, common ..	1 set.	1 set.	1 set.
	Trusses	1	1	1
	Enema syringe	1	1	1
	Pewter cup	—	1	1
	Teaspoon (pewter) ..	—	1	1
No.	Bougies	1 set.	1 set.	1 set.
	Catheter	1	1	1
	Bed pan	—	1	1
	Arrowroot	2 lbs.	4 lbs.	8 lbs.
	Pearl barley	4 lbs.	8 lbs.	16 lbs.
	Rice	4 lbs.	8 lbs.	16 lbs.
	Corn flower	4 lbs.	8 lbs.	16 lbs.
	Sago	4 lbs.	8 lbs.	16 lbs.
	Sugar	14 lbs.	28 lbs.	56 lbs.
	Soup and bouilli ..	6 lbs.	12 lbs.	24 lbs.
Preserved ..	Boiled mutton	6 lbs.	12 lbs.	24 lbs.
	Essence of beef	6 tins.	12 tins.	24 tins.
	(4 pt.)	—	—	—
	Compressed vegetables (mixed)	4 lbs.	8 lbs.	16 lbs.
	Potatoes (if not in scale of provisions)	14 lbs.	28 lbs.	56 lbs.
	Wine (Port)	3 bott.	6 bott.	12 bott.
	Brandy	2 bott.	4 bott.	6 bott.

TECHNICAL INSTRUCTION.

THE following Minute, which has an important bearing on the subject of Technical Instruction, has recently been passed:—

"At Whitehall, on the 21st day of December, 1867. By the Right Hon. the Lords of the Committee of Her Majesty's Most Hon. Privy Council on Education. Present—His Grace the Duke of Marlborough, Lord President of the Council; the Right Hon. Lord Robert Montagu, M.P., Vice-President of the Committee of Council on Education.

"SCIENTIFIC INSTRUCTION.

"LOCAL AND CENTRAL SCHOLARSHIPS.

"My Lords consider the subject of scientific instruction with a view to its further encouragement and diffusion.

"1. They refer to the 'Science Directory' of the Science and Art Department, and to the Minute of the Education Department of the 20th of February, 1867, making additional grants for secular instruction to elementary schools.

"2. In order to assist the artisan classes who may show an aptitude for scientific instruction, my Lords resolve to aid local efforts in founding Scholarships and Exhibitions. The Scholarship is intended to maintain the student while remaining at the elementary school, and the Exhibition to support him while pursuing his studies at some central institution where the instruction is of a high grade.

"3. Local Scholarships.—These are of two kinds—the Elementary School Scholarship and the Science and Art Scholarship.

"4. Elementary School Scholarships.—The Science and Art Department will make a grant of £5 towards the maintenance of a deserving student to the managers of any elementary school who undertake to support him for one year, and subscribe also at least £5 for that purpose.

"5. Conditions:—

"a. With any number of scholars up to 100 on the

register of the school there can be but one such Scholarship; above 100 and up to 200 two Scholarships, and so on for each 100.

"b. The Scholarship must be awarded in competition to the most successful student or students in some examination of the school. The absolute terms of the competition and the award of the Scholarship will be left to the managers of the school, subject to the approval of the Science and Art Department.

"c. The scholar must be an artisan or poor student as defined by the 'Science Directory,' and be between twelve and sixteen years of age.

"d. He must not be a teacher, pupil-teacher, or other paid servant of a school.

"e. He must continue regularly to attend the day school, and

"f. Pass in some one or more branches of science at the succeeding May examination of the Science and Art Department, after which the Department grant of £5 will be paid.

"6. These grants will be made from year to year on the condition that the student each year pass in a new subject, or in a higher grade of the same subject in which he first passed. It will be for the locality to determine for how many years the student may hold the Scholarship, but in no case can he be allowed to hold it for more than three years.

"7. The Science and Art Department will hereafter consider such alterations in these conditions as appear necessary.

"8. The Science and Art Scholarship.—The Science and Art Department will make a grant of £10 towards the maintenance of a student at an elementary school* who has taken a first grade in freehand or model drawing and elementary geometry (see 'Art Directory'), and passed in one of the subjects of science (see 'Science Directory').

"9. Conditions:—

"a. With any number of scholars up to 100 on the register of the school there can be but one such Scholarship; above 100 and up to 200 two Scholarships, and so on for each 100 scholars.

"b. The Scholarship will be awarded to the most successful student or students in the school.

"c. The scholar must be an artisan or poor student, as defined by the 'Science Directory,' of between twelve and sixteen years of age.

"d. He must not be the holder of an elementary scholarship, the teacher, pupil-teacher, or other paid servant of a school.

"e. He must continue regularly to attend the day school, and

"f. Obtain at least a third class in the same subject of science in which he had already passed, or pass in some other subject.

"g. In each year of holding the Scholarship he must pass either in a higher grade of the same subject or in a new subject.

"10. Local Exhibitions.—The Science and Art Department will make a grant of £25 per annum to the managers of any school or educational institution, or any local committee formed for the purpose, who will raise the like sum by voluntary contribution for the maintenance of a student at some college or school where scientific instruction of an advanced character may be obtained. The Exhibition may last for one, two, or three years.

"11. Conditions:—

"a. The Exhibition must be awarded in competition in one or more branches of science at the May examination of the Science and Art Department. The managers may select any branch or branches of science for the competition, and if more than one be taken they may fix any relative amount of marks they consider best to assign to them.

"b. The place where the student is to pursue his studies may be fixed by the managers subject to the approval of the Science and Art Department. If a Government institution be selected, such as the Royal School of Mines or Royal College of Chemistry, London, or the Royal College of Science, Dublin, the fees of the student will be remitted.

* By elementary school is understood any school where elementary instruction is given, whether aided by the State or not.

"c. The Exhibitioner must be of the artisan class or poor student, as defined by the 'Science Directory.'

"d. The grant of the Department will be paid from year to year on condition that a like payment has been made by the managers or local committee, and that the student has pursued his studies satisfactorily according to regulations fixed by the Department.

"12. Transmit a copy to the Treasury, and request sanction to provide in the estimate for the increased expenditure likely to be occasioned by this Minute."

The picturesque account of the Street Medicine-Sellers furnished by our Commission is the introduction to a series of articles, in the preparation of which our readers may materially help us by forwarding accurate information upon matters relating to the condition and practice of classes intimately or remotely connected with the drug trade.

The great success of the Chemists' Ball of last year, has induced its projectors to issue cards for a second, which will be held at Willis's Rooms, St. James's, on Wednesday, the 22nd instant. Among the stewards are some of the best-known members of the trade, both within and without the Pharmaceutical Society. We are quite sure to meet all who attended last year with many new friends.

The first number of a new series is sure to disappoint the expectations of its projectors. The best laid plans are often defeated by some simple accident, and the number, notwithstanding the pains bestowed upon it is seldom a fair sample of what is to follow. For instance, we proposed to supply our readers with articles on Dentistry, Veterinary Practice, and other subjects, which are scarcely referred to in the present issue, but which we recognise as proper grist for the mill. It is no fault of ours that there is nothing new this month to communicate under these heads.

At the eighth half-yearly meeting of the Chemists' Assistants Association, noticed in another column, Mr. Willmott offered the sum of one guinea to be added to a similar amount from the funds of the Association, for presentation to the member contributing the best essay "On the Dispensing Department: its Management and Supervision Practically Considered." The offer was accepted, unanimously. At a later meeting, held on Saturday last the chairman stated that the proprietors of the "Chemist and Druggist" had added an additional guinea to the premium.

Amongst the many societies which have recently arisen for protection from robbery, few commend themselves more than that established by the Wholesale Druggists, who, for a long period, have so largely suffered; in fact, there is seldom a receiver of stolen goods whose store is examined, without articles being discovered which have been abstracted from houses in the Drug Trade. The object of the Society is, to reach if possible the guilty parties, especially the receivers, and most liberal rewards will be given to those by whose information convictions may be obtained. The members also pledge themselves, no case to interfere with the prosecution of any offender, but to leave the matter entirely with the solicitor of the Society, C. O. Humphreys, Esq., (Humphreys and Morgan) 41, St. Paul's Church-lane, Newgate-street, who will be glad to receive in the fullest confidence, any information that persons are willing to offer.

Even the *Lancet* virtually admits that there is a rule of conduct higher than "professional etiquette," and that the first duty of a medical man, when life is at stake, is to bring all the skill and knowledge he can command to ameliorate the condition of the patient. The following notice of an inquest, extracted from the current number of our medical contemporary, calls up a ghastly figure of Professional Etiquette:—

"An important inquest was held at Snettisham last week on the body of a woman who had died immediately after delivery. It appeared in evidence that an unqualified practitioner, named Clarke, of Snettisham, had been in attendance on the woman for some considerable time, and being unable to deliver her, sent to Mr. Flockton, a surgeon in the town, to assist him. Mr. Flockton declined to meet Clarke, who in consequence retired, and Mr. Flockton immediately attended. Finding the case one of unusual difficulty, and requiring the administration of chloroform, Mr. Flockton sent to Hunstanton for Dr. Meller, who arrived at the expiration of two hours. The woman was placed under the influence of chloroform by Mr. Flockton, and Dr. Meller delivered her in a very short time. She survived the delivery about twenty minutes. The object of the inquiry was evidently to determine how far Mr. Flockton's conduct was open to censure in not immediately attending when Clarke sent for him, and delivering the woman with Clarke's assistance, instead of delaying the proceedings for upwards of two hours in order to obtain the aid of Dr. Meller. It should be stated that Dr. Meller had given his opinion at the inquest that if the woman had been delivered two hours before, her life might have been saved. There was evidently a strong feeling upon the part of the jury against Mr. Flockton, and they eventually returned the following verdict:—

"That deceased died in childbirth; but the jury regret that Mr. Flockton did not make use of the services of Mr. Clarke, instead of delaying to send for another doctor from Hunstanton."

It is remarkable that no expression of opinion was given by the jury as to the conduct of Clarke in permitting the woman to be so long in labour before he applied for the assistance of a qualified practitioner. The case is a painful one, and we regret that Mr. Flockton allowed any feeling of professional etiquette to influence him in refusing his help when life was at stake. This is not a time to be punctilious on points of form or ceremony."

MEMORABILIA 1867.

JANUARY.

2. The Council of the Pharmaceutical Society discussed important communications received from the Bath Chemists' Association and the Chemists and Druggists of Manchester, respecting the proposed extension of the Pharmacy Act.
4. Intensely cold weather in London; the thermometer at noon at 5 degrees Fahrenheit.
9. At a meeting of the Leeds Chemists' Association, the secretary read a communication from Mr. Orridge explaining the origin of the movement for an extension of the Pharmacy Act.
16. Parliamentary Committee of the Pharmaceutical Society had an interview with Earl Belmore at the Home Office.
24. Meeting of Chemists and Druggists at the London Coffee House, convened by the Executive of the United Society, to consider the proposals for an extension of the Pharmacy Act.
30. The Chemists' Ball at Willis's Rooms attended by 247 ladies and gentlemen.
31. Seventh Annual Soirée of the Glasgow Chemists and Druggists' Association.

FEBRUARY.

5. Parliament opened by the Queen.
7. The Bank rate of discount reduced from 3½ to 3 per cent.
19. Conferences at the Pharmaceutical Society's Rooms upon the proposed extension of the Pharmacy Act. Deputation from the United Society introduced by the

- President, Mr. Matthews. Dignitaries from Chemists unrepresented by any society introduced by Mr. Wado.
20. Dinner for the benefit of the Benevolent Fund of the Pharmaceutical Society, at Willis's Rooms, attended by 264 gentlemen interested in the charity. Subscriptions and donations collected amounted to about £1,450.
28. Annual dinner of the Bolton District Association of Chemists and Druggists.

MARCH.

8. Conversazione given by the Pharmaceutical Society in the Industrial Museum, Edinburgh. Annual Meeting of the York Chemists' Association.
18. The Government Reform Bill introduced by Mr. Disraeli, and read a first time.
26. The Reform Bill read a second time without a division.
30. Anniversary meeting of the Chemical Society.

APRIL.

1. The Paris International Exhibition formally opened by the Emperor.
4. Mr. Disraeli introduced the budget; the surplus of £1,206,000 applied to the cancelling of £24,000,000 of the National Debt by means of terminable annuities, and to the reduction of the Marine Insurance duties.
16. Annual Meeting of the Pharmaceutical Society, Edinburgh.
18. First annual dinner of the North Staffordshire Chemists and Druggists, at Stoke-upon-Trent.
22. International banquet of Chemists and Physicists at Paris.

MAY.

13. The Reform Bill for Scotland introduced by Mr. Disraeli.
14. Conversazione of the Pharmaceutical Society, Bloomsbury-square.
15. Twenty-sixth Anniversary of the Pharmaceutical Society. Annual General Meeting and Special General Meeting of the Society.
20. The foundation-stone of the Hall of Arts and Sciences at Kensington laid by the Queen.
30. The Bank of England rate of discount reduced from 3 to 2½ per cent.

JUNE.

6. Mr. Daniel Hanbury elected Fellow of the Royal Society.
26. Festival of the United Society of Chemists and Druggists held at Manchester.

JULY.

1. The prizes at the Paris Exhibition distributed by the Emperor.
15. The Reform Bill read a third time and passed in the House of Commons.
16. The Reform Bill read a first time in the House of Lords.
23. The Reform Bill read a second time in the House of Lords.
25. The Bank of England rate of discount reduced from 2½ to 2 per cent.

AUGUST.

6. Thirty-fifth annual meeting of the British Medical Association commenced at Dublin under the presidency of Dr. Stokes. The Reform Bill read a third time and passed in the House of Lords.
7. At a meeting of the Pharmaceutical Council, the following awards were declared:—LECTURES, Chemistry and Pharmacy: Medal, Hermann Woolley; Certificate of Honour, Joseph Bemrose; Certificate of Merit, Henry Thomas Harwood; Botany and Materia Medica: Medal, H. Woolley; Certificate of Honour, John Scoley Battle; Certificates of Merit, J. Bemrose, William Foster. LABORATORY, Practical Chemistry: Medal, J. S. Battle; Certificates of Merit, Edward Earl, Alexander Pedler. JACOB BELL SCHOLARSHIPS: Senior, Joseph Bemrose; Junior, Alfred Neobard Palmer. PEREIRA MEDAL: Hermann Woolley.
15. The Reform Bill received the Royal assent.
18. Michael Faraday died, aged 76.
21. Parliament prorogued by Royal Commission.

30. Pharmacy School cricket match between the "laboratory eleven" and the "lecture students eleven," resulting in a victory for the former.

SEPTEMBER.

3. Fourth Annual Meeting of the British Pharmaceutical Conference opened by Professor Bentley at Dundee.
4. Session of the British Association for the Advancement of Science at Dundee, commenced under the Presidency of the Duke of Buccleuch.
9. Fifth Annual Meeting of the Leeds Chemists' Association.
10. Fifteenth Annual Session of the American Pharmaceutical Association, opened by Prof. Parrish, in New York.
18. Social Science Congress assembled at Belfast under the Presidency of Lord Dufferin.

OCTOBER.

18. Election of two Annuitants on the Benevolent Fund of the Pharmaceutical Society.
21. The Royal Bank of Liverpool stopped payment, with liabilities amounting to £1,650,000.

NOVEMBER.

3. Paris Exhibition closed.
19. Parliament opened by Royal Commission.
20. The case of Liebig's Extract of Meat Company, v. Allen and Hanbury, decided in favour of the defendants.

DECEMBER.

3. The trade case of Lamplough v. Balmer decided against the plaintiff.
17. Terrible explosion of nitro-glycerine at Newcastle-on-Tyne, causing the death of Mr. Mawson, the sheriff of the town, and six other persons.



DR. DEWAR'S VULCANITE SPRAY PRODUCER.

This apparatus is described in Dr. Dewar's pamphlet "On the Application of Sulphurous Acid, gaseous and liquid, to the prevention, limitation, and cure of Contagious Diseases."



The employment of sulphurous acid in the form of spray was first recommended by the Kirkcaldy physician in 1866, and constitutes the most important feature of his system of treatment. Many medical men have used the spray in cases of diphtheria, bronchitis, catarrh, etc., and have testified to its remarkable aëriative powers.

A clever writer in the *Medical Times and Gazette* states that he has tried Dr. Dewar's system on many persons

of all ages, and can certify that, despite the suffocating odour of the sulphurous acid when smelled in bulk in the bottle, the spray is singularly agreeable and soothing to the throat. Dr. Dewar himself thus describes the method of applying the spray:—

"For the last eight months I have used the Spray Producer daily with the most gratifying and wonderful success; for while I have not seen a single case out of the great number to whom I have applied it suffer the slightest inconvenience, it has been the means of effecting cures in circumstances where such was little hoped for.

"The simple operation is thus conducted:—I hold the nozzle of the instrument about six inches from the patient's mouth, and administer three or four 'whiffs' to begin with; then, after an interval of a few seconds, during which a cough or two is given, the same thing is repeated, amounting to about twenty squeezes in all, which represents the injection of from forty to sixty minims of sulphurous acid.

"In some instances a single trial suffices for a cure; in others, and those of a more acute character, its hourly repetition is not only safe, but highly serviceable; while in diphtheria I have known cases wherein a renewed application every fifteen minutes was exacted with impatient punctuality. Richardson's instrument and the ordinary glass one answer the purpose sufficiently well; but the former is open to the objection of soon getting corroded, the latter, too, being very liable to accident, even in the most careful hands, and accordingly I contrived to have one made of 'vulcanite,' which works excellently well, and is suitable for any kind of acid liquid."

The acid employed should be pure (Brit. Pharm.), and care should be taken that the direction of the points of the tubes is not disturbed, the one opening blowing exactly over the other. Should the orifices get plugged, they may be cleaned by a bristle or by sucking water through them backwards. Our woodcut represents the Spray Producer as manufactured by Mr. David Storrar, of Kirkcaldy, and needs little description. The instrument consists of a vulcanite odorateur tube inserted in a bottle of strong sulphurous acid. A constant current of air, impelled by a double india-rubber ball, as in Dr. Richardson's spray producer for local anaesthesia raises a minute jet through the odorateur tube, and propels it against the throat or wherever else it may be wanted.

THE SILICATED CARBON FILTERING TAP.

This useful invention is intended for purifying water as it flows from an ordinary cistern or water-butt. The filtering tap is especially recommended to the proprietors of small tenements in poor localities, where, in many cases, several families derive their supply from the same receptacle, and where the water used for drinking and cooking is liable to every kind of contamination.

The filtering medium is placed in the front part of the tap, which, for convenience, is made to unscrew. In order to clean the filtering-tap (which may be done without emptying the butt) it is only necessary to unscrew the front part and blow strongly through it. By this means all the impurities are brought to the surface of the filtering medium, and may be washed off before placing the tap.

Whilst on the subject of filters, we would also notice an improvement lately introduced by the Silicated Carbon



Filter Company, in substituting india-rubber for cork, for the sockets into which the taps of their filters are fitted. This prevents the leakage of the water from the softening or cracking of the corks, which has hitherto proved a considerable annoyance in using filters.

GARDNER AND AINSLIE'S SULPHUR PASTILLES.

DR. DEWAR'S sulphurous acid medication has led to the introduction of these convenient pastilles for the production of sulphurous acid gas. The pastilles have the appearance of ordinary conical rifle bullets, and are made in two sizes, the smaller being adapted for ordinary purposes and the larger for fumigating hospitals, public schools, etc. When one of these pastilles is ignited, it burns steadily with the characteristic blue flame of sulphur, and gives off pure gaseous sulphurous acid, which may be used for inhalation in throat affections and diseases of the air passages, and for the prevention and cure of contagious diseases. The usual method of producing sulphurous acid gas by sprinkling flowers of sulphur on hot coals is clumsy and dangerous, and Messrs. Gardner and Ainslie deserve the thanks of the medical profession for introducing these handy and effective pastilles.

CURTIS AND CO.'S IMPROVED INHALER.

This inhaler seems to us to exemplify in a very perfect way, the careful adaptation of means to the end desired. It is strong, portable, and well-fitted, may be readily cleaned, and what is most important, can be conveniently used by a patient when in a reclining position, as its shape permits it to rest on the pillow without danger of upsetting. The objection to the use of cork, namely,—that it is liable to swell or contract, is obviated in this inhaler by the substitution of an india-rubber ring, fitted securely round the stopple. The tube is elastic, and is provided with a most convenient mouth-piece. In the neck there is a perforated porcelain disc for supporting a sponge moistened with any preparation that may be prescribed for inhalation. The apparatus is therefore peculiarly well-suited for the administration of chloroform, ether, creasote, and other volatile substances; as from its construction, the exact dose ordered can be administered. For the inhalation of the vapour of hot water only, or the infusion of stramonium, hops, etc., the perforated disc is removed. The air to supply the place of the vapour inhaled, enters the inhaler through two channels, and must pass through the liquid.



RIMMEL'S PERFUMED VALENTINES.

A FURTHER illustration of Mr. Rimmel's taste is shown in his new series of most charmingly conceived and designed valentines, issued for the benefit of the votaries of the lovers' saint. They are mostly of French design, and are really works of art.

COPAIBA DURA—BURT.

Mr. G. E. Burt has recently introduced a novel form of that much-used, nauseous specific, copaiba. It is described as "pure balsam of copaiba, solidified to a pilular mass by an entirely new process, which retains all the essential oil, covers its taste, and increases its medicinal powers." Dr. Attwood, of the Pharmaceutical Society's laboratory, certifies that a specimen of copaiba dura examined by him contained, in a hundred parts, eighty-five of true balsam. We can only add that it is a yellowish white soft solid, with very little taste. Mr. Burt is entitled to much credit for having so successfully carried out his idea of solidifying a nauseous liquid. Whether the new preparation is or is not more effective and more convenient than the old fluid balsam, is a question for medical practitioners to decide.



Little Experiments for Little Chemists. By WILLIAM HENRY WALENN, F.C.S. London: T. J. Allman. 1s.

WE think the author has been mistaken in the title he has given to his book; more especially is this to be remarked because he has been most happy in his method of handling the subject he has taken up. Instead of being merely a book of trifling experiments for amusement, as the title would lead one to infer, it is a work upon elementary chemistry treated in a practical and experimental form. The method of working is set forth with much clearness, and the experiments are arranged so as to lead the youth from the very beginning of the subject up to the verge of analytical chemistry itself. Seventy-two substances are taken in hand, and their relations to each other are traced out in such a logical manner, that they are a key to the rest of chemical science, as far as the operations of precipitation, crystallization, and deposition of metals can elucidate the subject. The results that the manipulator obtains are thoroughly explained, and the uses to which they are applied are practically put forth. It is astonishing to find how much real practical, useful information can be evolved from these substances by the experimenter himself, by the use of a few test-tubes, evaporating dishes, and strips of metal. One hundred and fifty-one experiments are arranged in order, but in reality there are many more, for the work is highly suggestive. Without introducing more points than are absolutely necessary to work out a result and understand it, the experiments are complete in themselves, and are evidently written from the laboratory table. The introduction is penned in a genial and rather enthusiastic spirit, and the experiments are arranged in series that lead up to the methods that are used in qualitative analysis for detecting the presence of substances. An appendix, apart from the work itself, contains the new nomenclature and notation, accompanied by synonyms. The work is unique, and many results not generally known are here obtained with ease, and lucidly explained. For schools, for affording a groundwork of chemistry apart from difficult operations, and for all beginners, the work will be a boon. It is also a work of reference as far as it goes, and all those who make chemistry a study will find it a useful acquisition.

NEW BOOKS.

Half-Yearly Abstract of the Medical Sciences. Vol. XLVI. Churchill. 6s. 6d.

Galloway's First Step in Chemistry. Fourth edition, fcap. 8vo. Churchill. 6s. 6d.

Kay Shuttleworth's First Principles of Modern Chemistry. Crown 8vo. Churchill. 4s. 6d.

Neligan's Medicines: their Uses and Mode of Administration. Seventh edition. By R. Macnamara. Thick 8vo, pp. 934. Churchill. 18s.

Kirby's Ready Method of Administering Remedies by Means of Portable Dispensaries and Prepared Medicines. Reashaw. 1s.

Braithwaite's Retrospect. Vol. LVI., from July to Dec. Simpkin, Marshall, and Co. 6s.



THE POISON OF THE COBRA.

SOME interesting experiments have lately been made in India relative to the action of the poison of the cobra by Dr. Shortt. According to the *Lancet* this gentleman, having regard to the numerous lives that were lost annually in India from the bite of this snake, was mainly anxious to discover some antidote for its poison, and set about testing the various remedies in repute for that object. After much expense, and no little risk to himself, he has found that all are valueless. Still thinking that some effective agent might be known to the natives, he offered a reward of 500 rupees for its production, stipulating that he (Dr. Shortt) should find the cobras and conduct the experiments, which were to be three in number. The prize still remains unawarded. Recently Dr. Shortt has received a communication from Sir T. Madava Row, the Dewan of Travancore, intimating that his Serene Highness the Maharajah has taken much interest in the question, and begs to offer a reward of 1000 rupees, under such conditions as Dr. Shortt may think desirable, to the person who can produce a remedy, and satisfy him that it is effectual against snake-bite. The prize, therefore, now amounts to £150. The discoverer, whoever he may be, will serve the cause of humanity greatly; and this announcement, our contemporary hopes, will awaken an interest in the question that may lead to some satisfactory result. Dr. Shortt has been good enough to say that he will be glad to facilitate the conduct of experiments (or to receive any suggestions thereon), and that he will conjoin to our contemporary, for the use of any gentleman disposed to investigate the question, heads of cobras, uninjured, preserved in spirits or simply dried, or in any other way that may be desirable; and, should our contemporary advise it, he will send one or more cobras themselves for experiment, provided that every precaution be taken to prevent the likelihood of any accident occurring. The *Lancet* confesses that the idea of receiving cobras is exceedingly unpleasant, but accepts the responsibility in the cause of science, and hopes that the result of the experiments will be the discovery of an antidote to a poison which kills so many human beings every year.

FRENCH TREATMENT OF ACUTE RHEUMATISM.

IN the Paris hospitals there have been lately a number of cases of acute articular rheumatism. It is interesting to study the different modes of treatment adopted by medical men. The greater number give the preference to the sulphate of quinine, but they do not all administer it in the same way. Many practitioners give it only in doses of from 60 to 80 centigrammes, and continue the same while the acuteness of the symptoms continues. M. Monneret gives as much as 4 or 9 grammes of this medicine, but in fractional doses, and with careful observation of its action. Finally, between these two extremes, there is another and apparently very satisfactory mode of administration. At first, the dose is from 80 centigrammes to 1 gramme; it is afterwards gradually increased to 2 grammes or 2 grammes and 90 centigrammes at the end of three or four days. This dose is continued for several days, and then gradually diminished until the cure is decided. It is generally allowed that the sulphate of quinine acts in these cases as a counter-stimulant; but Dr. Frémy, of the Beaujon Hospital, dissents from this view. He maintains that it should from the beginning be given in large doses, because it acts peculiarly as a disturbing medium, by inflicting a more or less violent shock on the animal economy, so as to sharply arrest the course of the disease. From this point of view, although

preferring the sulphate of quinine, M. Frémy would willingly employ other active medicines in rather large doses, such as tartrate of antimony, opium, etc. No practitioner any longer believes in the influence of sulphate of quinine in the production of cerebral rheumatism, of which apprehensions had been raised by the observations of MM. Bourdon and Vigla. The use of nitrate of potash in the treatment of acute articular rheumatism is nearly abandoned. The same may be said of veratrine, formerly lauded by Piedagnel and Aran, and which produced excellent results. Dr. Oulmont, physician to the Lariboisière Hospital, almost exclusively employs digitalis. Guided in his first trials by the researches of Traube in Germany and Hertz in France, M. Oulmont administers an infusion of 1 gramme of the pulverised herb in 120 grammes of water—a teaspoonful every hour. At the end of from thirty-six to forty-eight hours, the pulse and the temperature are lowered; on the third or fourth day, the pulse falls from 20 to 40, and the febrile heat is considerably diminished. At the same time, the rheumatic manifestations rapidly disappear. The cure sometimes takes place in six or seven days, but ordinarily in from twelve to nineteen days. No cerebral or cardiac complications ever supervene. These facts are of such a nature as to encourage experiments on a large scale in the administration of digitalis in acute articular rheumatism. As a matter of course, these different methods of treatment are always accompanied by general or local adjuvants, the ordinary use of which presents no interesting features. — *British Medical Journal*.

Photography.

PHOTOGRAPHIC PATENTS.

THE present position of photography is well illustrated by the "Abridgments of Specifications relating to Photography," Part II., A.D. 1860—1865, lately published by the Commissioners of Patents.

From this work, we find that during the years to which it relates, 172 applications were made for Letters Patent for photographic inventions, and that 98 were granted, there being 72 Provisional Protections, and 2 cases in which Provisional Protection was refused by the Law Officer of the Crown.

The present extended use of albums has almost entirely sprung up during this period; 15 specifications relate to this branch of the subject. Photo-sculpture, phenakisticoscopic apparatus, micro-photography, and enlarged photographs are set forth in 15 specifications; and improvements in stereoscopes, cameras, panoramic photography, photo-zincography, enamel photographs, and the production of printing surfaces are represented by 58 specifications.

In a "photo-sculpture," M. WILLEME, the original inventor (see No. 256, A.D. 1863), employs photography, in connection with the pantograph, to produce sculpture of any size, a series of photographs of the model from suitably-placed cameras being used to guide the tool of the pantograph in corresponding planes in succession. By this means a solid copy of the model, in marble, clay, &c., is built up of the various contours that are separately obtained.

M. CLAUDET read a paper to the British Association on this subject, in September, 1864, which is duly alluded to in the "Introduction." He also improved upon M. Willeme's process (see No. 3107, A.D. 1864) by substituting enlarged images of the original photographs (made by the camera) for the tracings of the pantograph. The images were projected on to the clay itself, and their contours followed by hand.

Mr. W. T. SHAW (see Introduction, p. xi., and Appendix, p. 127) applies the principle of the stereoscope to instruments which depend for their results upon persistence of

vision, and uses photographic pictures to ensure satisfactory results. In a paper read to the British Association in 1865, M. CLAUDET describes a method of producing photographic figures that apparently move, by a somewhat similar combination. Microscopic instruments of this class are described by BONELLI (No. 2063, A.D. 1863, and No. 1588, A.D. 1865); and DUMONT (No. 1457, A.D. 1861) sets forth methods of producing the series of photographic images, necessary to give the pleasing and lively effects of these instruments. Any one who has seen the effects produced by instruments of this class (of which the phenakistoscope, and the so-called "wheel of life" are examples) cannot fail to be struck by their special adaptation to the teaching and amusement of children; and even children of advanced age and larger growth will—from examination of such instruments—fully realise the power of scientific applications of thought to raise their philosophy to enthusiasm.

M. CLAUDET, and others (Introduction, p. x.; No. 363, A.D. 1864; and No. 1000, A.D. 1864) adapt the solar camera to obtain enlarged photographic pictures from small negatives.

The improvements in stereoscopes are numerous, and comprise folding, panoramic, and other stereoscopes. SWAN (No. 559, A.D. 1860) constructs his instrument with lenses and pictures, respectively of different sizes. HIRST AND WOOD, RUSSELL, and CASSAIGNES (No. 1611, A.D. 1862; No. 1944, A.D. 1862; No. 3071, A.D. 1862; No. 1204, A.D. 1863; and No. 2618, A.D. 1863) set forth methods of producing coloured effects; and SWAN (No. 3249, A.D. 1862) produces the effect of a solid figure, enclosed in glass, by means of glass prisms, on certain facets of which stereoscopic pictures are mounted.

Of the twenty specifications that relate to photographic cameras, the following are worth notice:—Mr. SUTTON (No. 2073, A.D. 1861) substitutes for the ordinary focussing screen, a screen fitted into an open panel in the top of the camera, an erect image being thrown upon it by means of a reflector, so placed that, at the same time that it reflects the object in front, it shields the sensitive plate from the light which passes through the lens. MANN (No. 948, A.D. 1862) specifies an instantaneous camera-shutter and other points. ALLEN WILSON (No. 1712, A.D. 1862) makes the camera box also serve as a dark chamber, with appurtenances to sensitise, and develop collodion pictures. CEILLEUR (No. 478, A.D. 1863) describes a plate carrier for enabling 100 or more impressions to be obtained on the same plate, without removing it from the plate holder.

Amongst the scientific applications, the Introduction furnishes information respecting the work of the self-recording instruments at Kew and at Greenwich, the actinic spectra of the metals, and "celestial photography." The peculiarities of the chemical action of the light evolved from metallic and other sources, and passing through different media, are well investigated and described in a paper read to the Royal Society in 1862, by Dr. W. A. MILLER. Sun pictures, stellar photography, and kindred investigations, principally by that veteran astronomer and physicist, WARREN DE LA RUE, are done justice to, the account of the solar eclipse of July 18, 1860, occupying a prominent place. It is worthy of notice that, in stellar photography, it is necessary to put the images of the fixed stars out of focus, in order to render them visible in the photograph.

The following remarks relate to processes:—In the aniline process by WILLIS (Introduction, p. xix., and No. 2800, A.D. 1864), the vapour of aniline is used to darken the impression. PETSCHLER and MANN (Introduction, p. x.), in their new collodio-albumen process, involving the use of a chloride, are enabled to sensitise their plate by aqueous washing only.

MARÉCHAL and DU MOTAY (No. 1060, A.D. 1864) produce "indelible photographs," by a process in which the picture, reduced by ferrous sulphate, is strengthened by the action of pyro-gallic acid. The well-advertised WOTILYTYPE process (No. 2347, A.D. 1864) has the employment of uranium nitrate to sensitise paper, for its chief novelty. The carbon process (No. 955, A.D. 1861; No. 586, A.D. 1863; No. 503, A.D. 1864; and No. 1791, A.D. 1865) consists in various modifications of utilising the plan of dissolving away carbonised gelatine in the non-actinised parts.

In the theory of photographic science, besides the paper of Dr. W. A. MILLER already alluded to, the Introduction contains notices of a paper read to the British Association in 1863, by C. PIAZZI SMYTH, upon the actinic quality of the atmosphere at a high elevation; of Roscoe's investigations on the chemical nature of sunlight; and of a paper read to the Chemical Society, in 1864, by Mr. M'DOUGALL, in which it is stated that "the sensitiveness of papers, containing the same quantity of chlorine and bromine combined with sodium, potassium, ammonium, and barium is constant."

In inventions relating to photography, a very fair amount of real improvement is manifested; the number that die out before they become patents is considerably below the average, and old inventions are not repatented to the extent that occurs in other departments of practical science.

Mr. BENNET WOODCROFT has entrusted the preparation and compilation of this small volume to Mr. W. H. WALENN, the compiler of the first part of the photographic abridgments and of other series. It is noticeable that each abridgment has a certain vitality about it, and that the volume forms a compendium of all the inventions (from A.D. 1860 to A.D. 1865 inclusive) to which a photographer need refer. The plan of the work is stated with logical correctness in the preface, and the two indexes make the reference to any part of it easy; the new nomenclature defines the chemical substances to the utmost degree of exactness, in the subject-matter index. In conclusion, we heartily congratulate the photographic public upon having such a condensed account of the practical science belonging to their beautiful art.

PHOTOGRAPHIC NOTES.

APPARATUS FOR MOUNTING PHOTOGRAPHS.

At the December meeting of the Paris Photographic Society M. Davanne exhibited, in the name of M. Manillier, a very simple piece of apparatus designed for the purpose of facilitating the mounting of photographs. It is composed of two sheets of cardboard put together in the form of the cover of a book. The inner surface of one of these boards is covered with white varnished paper, on which are traced horizontal and vertical lines dividing the surface into a large number of squares of equal dimensions. The two lines crossing the middle of the card in the direction of length and breadth are numbered from the centre, where they bisect one another at right angles, the numbers being repeated on each side. A print which has been coated with mounting material is placed face downwards on this species of draught-board in such a manner that the centre of the picture exactly covers the middle of the cardboard (where the two central lines cross one another); this is easily done by placing the extreme corners of the print upon such squares as bear similar numbers. The mount is then fitted over the squares in the same manner, the margin being allowed for and calculated from the number covered by the print; the two boards are then pressed firmly together, and the picture is mounted in a very prompt and accurate manner.—*Photographic News*.

GLUE FOR MOUNTING PRINTS:

"AN OLD HAND" in the *Photographic News* objects to the use of india-rubber solution for mounting photographs, and

recommends a less expensive and more convenient material. He says,—“The best material I know for mounting prints on thin boards, without cooking, is glue, used with as little water as possible, and very hot. I always test glue for acidity before using it.”

NEGATIVE VARNISH.

In the *Mittheilungen*, M. Weber communicates a formula for obtaining a good negative varnish. It is as follows:—

Best yellow shellac	1 lb.
Alcohol	2 lbs.
Ordinary resin	
Venetian turpentine	1 oz.

The shellac does not dissolve entirely, and the thick, turbid solution is filtered through coarse blotting-paper, a little more alcohol being added if necessary. To clarify it, the mixture must be allowed to stand for some time. It is poured over the plate in the usual manner, the latter being slightly warmed previous to the operation.—*Photographic News*.

DISTILLED WATER IN PHOTOGRAPHY.

BY NELSON K. CHERILL.*

I LOOK upon distilled water as one of the greatest mistakes of the photographic laboratory. It is, I believe, quite useless in all the useful operations of practical photography. For the purposes of scientific experiment, for elaborate comparisons of the respective values of certain solutions, for a few unimportant dry processes, and for those who believe in *handbooks* and *books of instruction*, distilled water may be found an indispensable necessary; but in the ordinary course of photographic work, I do not find any advantage gained by its use, or any disadvantage to accrue from substituting for it the ordinary water as it is "laid on," which is, of course, much cheaper, and which serves every purpose.

The water which is supplied to me now contains, I doubt not, a most delightful list of impurities, and these abound in sufficient quantities to render it exceedingly nice to drink (a sure sign of great impurity), and to throw down a great milky-white precipitate with nitrate of silver; yet I use it for making nitrate baths, and for every other photographic purpose, with great success.

For the nitrate bath, the most delicate of all the solutions used by the photographer, nothing more is required with this or any other sample of similar water than the addition of a few grains of silver to a gallon or so, or an ounce of old bath-solution may be thrown into a considerable bulk of the water. The precipitate formed may be, if thought well, collected on a filter, and the paper added to the silver-waste box, or the precipitate may be thrown away; the bulk of it will fall to the bottom of the vessel in which the silver was added to the water, and the slight amount which remains in suspension may be disregarded.

For the developer, I never find the slightest difference in effect between one kind of water and another. It does not seem to matter at all about the precipitate formed by the silver in the water; indeed, I am not sure it is formed at all, the sulphate of iron decouposing the nitrate of silver before it has time to effect the precipitation in the water of which the developer is made.

I have never been able to see the least use in washing the film with distilled water after the hypo has been all removed from the film. This is recommended by some as a means to remove the impurities of the common water, and so to enable the shadows of the picture to dry more clear and brilliant. I have never found a negative print any the better for all this extra trouble.

I find a bath for printing purposes may be made just in the same way as that recommended for the nitrate bath—i.e., the water cleared first with a little silver, and then filtered or left to settle. I have never made a toning-bath with distilled water that I can remember, and so I cannot speak from experience of the difference (if there is any) between common water and distilled for this purpose; but I never find the slightest fault with my toning-baths; they do their work quite well, and that with common water.

* Contributed to the *Photographic News*, Jan. 10.

I have thought much upon the use of common water for dry plate washings. I am convinced that distilled water is not at all required in any of the best processes. The precipitate from water is only an insensitive silver salt, generally chloride; how should this hurt the film, which always contains bromide and iodide of silver, and often chloride too? It seems to me that the more a dry process depends on some abnormal condition for success the more need there is for using distilled water. I have noticed this particularly with the tannin process. I have done some very good pictures with tannin plates, but of all the processes I ever tried it is the most *uncertain*; success seems to depend on some curious abnormal conditions which no one understands, and the most trifling disturbance, even one so small as that caused by the minute quantities of foreign matter in common water, is fatal to good results. Turn to the other extreme; the most *certain* of all dry processes—the collodio-albumen—to use Mr. Mudd's own words, "distilled water is not necessary in any stage of this process." These things may not be fully understood yet, but till they are, I say, give up those processes which need distilled water, because they depend upon *uncertain conditions of success*.

Corner for Students.

Under this head we propose to give queries and problems that may be profitably considered and worked out by our younger readers. We expect to receive problems as well as solutions, and trust that in the course of a few months this little corner will be well filled with the results of much hard thinking. At present we shall simply give a single specimen of the sort of problems we hope to receive.]

RELATIVE WEIGHTS OF THE OFFICINAL ACIDS.

Give the weight of a pint of each of the following acids of the Brit. Pharm. 1867:—*Acidi*: Aceticum, Acet. dil., Hydrochloricum, Hydrochlor. dil., Nitricum, Nitricum dil., Sulphuricum, Sulphuric. dil., Sulphurosum.

The weights must be calculated from the specific gravities given in the Pharmacopœia, and expressed in grains with three decimal places.

Obituaries.

ANTOINE FRANCOIS CLAUDET.

M. ANTOINE FRANCOIS CLAUDET, the eminent photographer, died suddenly on Friday, the 27th ult., of heart disease. The day before Christmas-day he made various appointments, and planned many duties at his studio in Regent-street for the following Friday, the day of his death. M. Claudet was born in Lyons on the 12th of August, 1797, so that he had already lived out the usual span assigned by the Psalmist to mortal men. But he was an active worker to the last, and may be said to have died in harness.

The labours of his life are thus referred to by the *Athenæum*:—Shortly after the discovery of the daguerreotype, M. Claudet communicated to the French Academy of Sciences a paper on the discovery of a new process for accelerating the production of the daguerreotypic image by the addition of bromide and chloride of iodine to the iodide of silver; thus permitting a portrait to be obtained in fifteen or twenty seconds. This discovery was, with the fixing of the image by chloride of gold, the completion of Daguerre's invention. In 1849 M. Claudet communicated a paper to the Académie des Sciences upon the use of a new instrument called the "Focimeter," the object of which was to secure the good focus of photographic portraiture. In 1848

he communicated a paper upon a new apparatus called the "Photographometer," the object of which was to measure the intensity of the photogenic rays and to compare the sensitiveness of various compounds. This paper was also read before the British Association at Birmingham, 1849. At the Universal Exhibition of 1851, M. Claudet received the Council medal from the President of the jury for his numerous discoveries in photography. In 1853 M. Claudet was elected member of the Royal Society, for his various scientific labours and discoveries in connexion with photography. His certificate of admission was signed by Sir John Herschel, Sir David Brewster, Professor T. Graham, Professor Wheatstone, Professor Faraday, Mr. Babbage, and other eminent members of the Society. In the same year he had the honour of taking the portrait of Her Majesty and several other members of the royal family, and was appointed Photographer in Ordinary to Her Majesty. In 1855 M. Claudet obtained a first-class medal at the French International Exhibition for his eminence in the profession. In 1858 he communicated a paper to the Royal Society upon the "Stereomonscope," a stereoscopic instrument founded upon the observation of the apparent relief of the image of the camera obscura. In 1862 M. Claudet was elected member of the jury at the London International Exhibition, and obtained the medal of the jury. In 1850 a medal was presented to him by the Society of Arts and Manufactures of London for the invention of a new machine for cutting glass, whatever might be the curvature of its surface. He received this medal from the hands of H.R.H. the late Prince Albert. M. Claudet was a Chevalier of the Order of the Legion of Honour, and he had tokens presented to him by the late Emperor of Russia and King Louis-Philippe.

JOHN MAWSON.

THE terrible explosion of nitro-glycerine, which has brought sorrow into many homes in Newcastle-upon-Tyne, has removed an honoured name from the roll of the Pharmaceutical Society. Mr. John Mawson, the Sheriff of Newcastle, was applied to for assistance and advice in the removal of a large quantity of nitro-glycerine (originally intended for mining purposes), which had been found warehoused in the very centre of the town, and it was whilst superintending its destruction that an explosion took place, inflicting bodily injuries so frightful that death was but a release from suffering.

Mr. Mawson was best known amongst pharmacutists in connexion with his extensive business in photographic chemicals and scientific apparatus. Of recent years, being relieved from close attention to these branches of trade, he had been concerned in the manufacture of some of the heavier chemicals largely produced in the district. His increased leisure had of late been devoted to municipal services and philanthropic objects, and in November last he was elected to the office of Sheriff of Newcastle.

Our pharmaceutical contemporary says with truth that he will always be associated in the minds of those who knew him with kindness and simplicity of demeanour, honesty of purpose, and readiness to help in good works.

The remains of Mr. Mawson were interred on the 23rd ult., when the town of Newcastle presented a singularly gloomy appearance. Nearly all the shops and places of business were either wholly or partially closed, the bells of the parish churches tolled muffled peals, and between one and two o'clock a funeral procession, fully a mile long, followed the remains to Jesmond Cemetery, where they were

consigned to the earth by Archdeacon Prest. Newcastle has enjoyed municipal privileges over 400 years, and Mr. Mawson is the first Sheriff who has died during his term of office. It seems that according to the Municipal Act the Town Council cannot elect a successor until the 9th of November, 1868, and the Under-Sheriff will have to perform the duties of the office in the meantime.

MRS. BUOTT.

With sincere regret, we record the death of an estimable lady, whose kind words and kinder actions must have impressed many a reader of this journal. Mrs. Buott, the wife of Mr. Cyrus Buott, the Secretary of the United Society, died on the 7th instant, in the sixty-eighth year of her age, at that house in New Ormond-street which she has so long brightened with her presence. These few words are written as a true and sorrowful tribute to the memory of a good and clever woman who won the confidence of all who had the happiness to know her.



MANUFACTURING AND SCIENTIFIC CHEMISTS OF GLASGOW.

An important and interesting meeting of the Manufacturing and Scientific Chemists of Glasgow and its neighbourhood was held at the Victoria Hotel, West George-street, on the 12th of December. The company consisted of about fifty gentlemen, who dined together, Mr. E. C. C. Stanford, a well-known member of our Society, and Director of the British Seaweed Compsny, presiding. Most of the leading chemical works of Glasgow were represented, as well as the less numerous class of professional chemists, including Professor Anderson, of the University. The immediate object of the meeting was to promote a more intimate acquaintance among all classes of scientific chemists in the neighbourhood, and to extend the cultivation of chemical science by the formation of a Chemical Society.

The Chairman, in opening the after-dinner business, alluded to the necessity there was in the present day, for chemists to use all available means to enable them to keep pace with the rapidly-advancing progress of chemical knowledge. "So rapid," he said, "is the advance of chemistry, and in such a geometrically increasing ratio does it enlarge its boundaries, that even we younger men have the greatest difficulty in keeping pace with it. We find the words to which we attached definite meanings stowed away in what Dr. Anderson at Dundee happily described as "scientific lumber-rooms," and our cherished chemical nomenclature tottering to its base, and the ruins coming down about our ears under the attacks of chemists, many of whom have left school since we did. It is true of chemistry that it has "no good old times," for the present time is its oldest and its best. And this progress deeply concerns chemical manufacturers, who have the greatest need to watch the rapidly-occurring changes in the science they apply. In speaking on a paper by Mr. Bell, of Newcastle, Dr. Odling said, at Dundee, that although he had been engaged in teaching the science of chemistry for many years—and he is one of our best teachers—he never entered a large chemical work but he felt his ignorance of the great methods by which that knowledge he taught was practically applied, and he expressed the views of all theoretical chemists—it is so easy to perform our reactions in the laboratory; but none but those who have tried it know the difficulties that rise up and meet the manufacturer who dares to attempt large improvements. Courage, patience, and perseverance, must be his. He must not be the man of one idea, he must not know chemistry alone, but his knowledge must extend

to and include all the physical sciences, and every application must pay.

"This city has great reason to be proud of its chemical factories—nearly every known branch is here represented. Long before the stranger who approaches Glasgow sees the flames of her forges, or hears the sound of her hammers, his attention must be arrested by her tall chimney shafts; the masts to which her chemical flag is nailed, and her manufacturers' challenge held high before the world. If a factory can be measured by its height, one of these stands distinguished and pre-eminent. Humboldt called 'chemistry the Egyptian art,' and unless it should return to that country, and one of the pyramids be converted, so that it 'draws' even better than at present, our friend Mr. Townsend will still reign without a rival, and never be able to compete with any one his own size. Glasgow is no less distinguished for its scientific chemists; Thomson, Ure, and a long list of names form a brilliant scroll. Here, then, of all cities, the scientific stranger will expect to find one of the best chemical societies in the kingdom."

We understand, although no definite resolutions to that effect were passed, that the meeting may be considered the first step to the formation of a Chemical Society of Glasgow.—*Pharmaceutical Journal.*

CHEMISTS' ASSISTANTS' ASSOCIATION.

At the eighth half-yearly General Meeting of this Association, held at 14, Air-street, Regent-street, on the 5th ult., the following Report was read and adopted:—

"Gentlemen,—Our last and most pleasant duty, as retiring Committee, is to lay before you a statement of the transactions during the past half-year.

"The names of the officers who retire from the management this evening are Mr. Kirkland (President), Mr. Lloyd (Vice-president), Mr. Sands (Treasurer), Mr. Sleggs (Hon. Sec.), and Messrs. Hunt, Matthews, Provost, Smith, and Shephard.

"During the last six months the Association has flourished and prospered, with little or no impediment to check its growth. The parent stem is growing strong and hardy—has struck its roots more deeply—and is flourishing and fruitful: already branches are springing from the old trunk, green and fresh, and full of promise.

"It is with satisfaction that we specially notice the Chemists' Assistants' Association for Bristol and Clifton, founded by Mr. Beynon, who left us a few months ago. The programme issued by this Society augurs well for its future success.

"At the commencement of our session, a well-filled programme was issued to the members, and it is pleasing to note that, with one or two exceptions, the whole of the papers have been read, and it will be gratifying to all present to know that the eighth half-year has been more successful than any previous one, in the number of appropriate and interesting subjects for discussion, evincing that the true objects of the Association are becoming more and more appreciated, and that members generally have a greater desire to bring forward important topics in chemistry and pharmacy and other subjects of every-day experience for discussion.

"It is also very pleasing to have to record that, during the half-year, fourteen new members have been elected making a total of 143 from the commencement of the Society.

"The average attendance at the weekly meetings has been very good, notwithstanding the necessary disadvantage which results from the absence of the members from town during part of the summer season.

"Many of our old members have, through removal, ceased to mingle among us, but these, in their communications, invariably show how many pleasant memories of their past association with us are cherished by them.

"The Committee have to congratulate the Society on the improved state of the finances, as set forth in the Treasurer's account, showing a fair balance in hand.

"The project, at one time entertained, of a supper at the commencement of the half-year, was, in compliance with the generally-expressed opinion of the members, abandoned,

it being thought by many that an annual winter gathering would be better appreciated.

"The Committee beg to thank the members of the Association for the confidence placed in them, and for the kind manner in which their efforts have been seconded; and venture to express a hope that the success which has attended their exertions may be continued to those who follow them.

"In conclusion, the Committee beg leave to announce their retirement from office, and in doing so, would impress upon all the necessity for individual effort to promote the objects of a Society which is acknowledged by every one at all acquainted with it, to be an invaluable boon to the chemists' assistants of London.

"HENRY KIRKLAND, *Chairman.*

"GEORGE R. SLEOGS, *Hon. Sec.*"

Mr. WILLMOTT, an active member of this Association, has generously offered the sum of one guinea, to be added to a similar amount from the funds of the Association, for presentation to the member contributing the best essay on "The Dispensing Department; its Management and Supervision practically considered." The offer has been accepted, and will doubtless stimulate some of the clever members of the Association to exercise their literary powers.

SHEFFIELD ASSOCIATION OF CHEMISTS AND DRUGGISTS.*

LECTURE ON DIFFUSION.

THE monthly meeting of this Association was held on Wednesday evening, the 11th ult., on which occasion A. H. ALLEN, Esq., F.C.S., gave an interesting lecture on "Diffusion," a subject which the lecturer said was not generally understood, but which had of late acquired great importance in connection with chemistry. He showed that the different gases diffuse through porous bodies with a velocity inversely proportional to the square roots of their densities or specific gravities. The fire-damp in coal mines was a gas escaping from coal, and was a compound of carbon with hydrogen, which caused such disastrous explosions when allowed to come in contact with the flame of a candle. This fact was illustrated by experiments which forcibly portrayed the high diffusibility of fire damp, and he showed how its presence might be made apparent by an ingenious application of the property of diffusion, invented by Mr. Ansell. "Dialysis" was a term used to express the diffusion of liquids through membranes; and in order to convey the meaning and use of this process more fully, he showed some experiments, distinguishing the *crystalloids*, or crystalline bodies, and the *colloids*, or uncrystallizable substances. He said that silica, or flint, could be dissolved by water, under high pressure, and that an experiment had been successfully carried out by their eminent townsman, C. Sorby, Esq., F.R.S., which showed that glass might be dissolved in water, and the silica separated from the solution by the diffusion process. After a very interesting discussion upon the subject, a vote of thanks was unanimously awarded to the lecturer for so instructive a paper.

ANNUAL DINNER.

On Thursday, the 19th ult., the members of this Association held their annual dinner at the King's Head Hotel. Mr. WARD, the President, occupied the Chair, and Mr. HORNBY, the President of the United Society of Chemists and Druggists of the United Kingdom, officiated as Vice-Chairman. The usual loyal and patriotic toasts having been duly honoured,

Mr. BROWN proposed the toast of the evening, that of "Success to the Sheffield Association of Chemists and Druggists." In doing so, he congratulated the members on the progress which the Society had made since its first meeting, and he noticed with pleasure the improvements which were to be observed in their trade in the town of Sheffield. He expressed a hope that, in future, the Association would continue its useful career, and that the number of its members would increase.

Mr. HORNBY, who was called upon to respond, said it was very pleasing to note the progress of their Association, which might be attributed in a great measure to the lectures and papers rendered at the monthly gatherings, affording, as they did, instruction, not only to the members, but to the assistants and apprentices. The latter were encouraged by the offering of prizes for competition; and it was remarkable how speedily the diffusion of practical chemistry incited them to study. In these days of scientific knowledge, unless men were well up in details, they seldom rose past mediocrity, and the public at large were, he believed, beginning to acknowledge those who, by perseverance in the paths of knowledge, rendered themselves better qualified to discharge the trust confided in them. For years it had been the endeavour to raise the standard of chemical knowledge amongst chemists and druggists, and various means had been adopted to obtain so desirable a result; but until the formation of this Society, all attempts had failed. The encouragement which it had received, however, in the town of Sheffield among the fraternity, augured well for the future standing of the profession. Nor was it in Sheffield alone that these benefits had been promulgated, but throughout England, the spirit of inquiry, and the thirst for knowledge had made the United Society one of the most stable and promising institutions of the day; and should the Pharmaceutical Society continue to hold out the hand of friendship and sympathy to those not as yet connected with them, except in name, they might rest assured that the general good would far outweigh the isolation which their Society had held for many years. No doubt there were many calling themselves members of the Pharmaceutical Society, who desired to retain the privileges to themselves, although, practically, in chemical knowledge, they were far behind hundreds of their fellow-tradesmen. But, thanks to the liberal spirit of the Pharmaceutical Council, there was now hope for the realization of the general advancement of the trade, in spite of the obstructionists. Therefore, it might be concluded that those associations alone had tended to stir up the apathy of trade to those pursuits which would be to them a source of pleasure and profit. He had great pleasure in responding to the toast.

Mr. GODLEY gave "The Town and Trade of Sheffield," and the toast was responded to by Mr. HUDSON, who spoke in encouraging terms of the prospects for the future, notwithstanding the languor which has for some time past and still pervades many branches of the Sheffield trades.

Mr. CROOK proposed "Success to the United Society of Chemists and Druggists," to which Mr. Blain, of Bolton, was called upon to respond.

Mr. BLAIN spoke in encouraging terms of the benefits conferred through the instrumentality of the United Society, and he specially mentioned its efforts in connection with seeking for improved legislature in connection with their trade. He adverted to the necessity of sympathy between the members of the Pharmaceutical Society and outsiders, and whilst arguing in favour of freedom, he held that it was both desirable and necessary to keep up the standard of efficiency amongst members of the trade, who should, as he contended, be properly qualified before they are entrusted with the duties of their calling.

Mr. THOMPSON proposed "The Committee," to which Mr. NEWHAM responded, and "The Hon. Members and Visitors," was proposed by Mr. WATTS, and responded to by Mr. ALLEN, F.S.A.

Other toasts followed, and the evening was spent in a very agreeable manner.

UNITED SOCIETY OF CHEMISTS AND DRUGGISTS.

MEETING AT BRIGHTON.

A MEETING of the members of the United Society of Chemists and Druggists was held at the Clarence Hotel, Brighton, on Friday evening, the 20th ult., Mr. J. Dinnis presiding.

Mr. DINNIS said he was glad that it was in contemplation to constitute in the important town of Brighton an influential and active Association of the United Society. He would not needlessly occupy their attention as there was business to be done and only a short time to do it in, therefore he would at once move the following resolution:—

* Communicated by Mr. R. O. Huddleston, Hon. Sec.

"That all existing chemists and druggists, whether principals engaged in business now, or assistants to be engaged in business hereafter, have a common right to membership with any body empowered by Act of Parliament to regulate the trade."

Mr. UNTHANK having seconded the motion, the resolution was put to the meeting, and carried unanimously.

Mr. KILBY PEARS then moved the next resolution, as follows:—

"That as, to delay the means to secure this right would in all probability be fatal, and as success depends upon able advocacy, extensive publicity, and efficient action, this meeting resolves itself into a District Association of the United Society according to Rule No. 7; and hereby deposes Mr. Unthank to represent the Brighton members upon the Executive Committee, and to assist at the councils of that body."

This resolution was seconded by Mr. READ, and also unanimously adopted.

Mr. J. DINNIS was appointed Chairman of the District, and Mr. KILBY PEARS, Honorary Secretary.

The following gentlemen, Messrs. Read, Lewin, Macintosh, Leaver, Dowsett, Schweitzer, Menger, and Field, with power to add to their number, were nominated as a Committee to carry these resolutions into effect, and to transact the general business of the Association.

A vote of thanks given to the Chairman terminated this first meeting of the United Society in Brighton.

KILBY PEARS, *Honorary Secretary.*

HULL.

The annual supper of the Hull Branch of the United Society of Chemists and Druggists was held at the George Hotel, Whitefriargate, on Wednesday evening, the 4th of December, when upwards of forty members of the trade sat down to a repast, which reflected the greatest credit on the proprietor, Mr. Bellamy. Mr. Burn (of the firm of Burn & Scrutin), the President, occupied the chair; and Mr. C. B. Bell, Vice-President, and Mr. George Wokes, Treasurer, the vice-chairs. After supper, the President proposed "The Health of Her Majesty and the rest of the Royal Family;" after which he proposed "The Town and Trade of Hull," coupled with the name of Alderman Toogood, who most ably and facetiously replied. From the remarks of this gentleman, it appeared that he was the first chemist in Hull raised to the aldermanic bench since the passing of the Reform Bill. Before sitting down he proposed "The Health of the President," which was drank with musical honours. The President thanked the members for the very kind way in which the toast had been received and drank, and then proposed the toast of the evening—"Success to the United Society." Mr. Bell, V.P., whose name was coupled with the toast, thanked the company most heartily for the kind manner in which the toast had been received, which so plainly marked their allegiance to the parent Society; also for the honour which had been conferred on him. He trusted that the amended Pharmacy Bill to be introduced during the next session of Parliament by the United Society and the Pharmaceutical Society would meet the wishes and requirements of the whole trade. In conclusion, he proposed "The Health of the Treasurer," who always took great care of their money. Mr. Wokes replied in a neat speech, and proposed "The Health of the late Secretary, Mr. Staining." Mr. A. Smith, in a very able and eloquent speech, proposed "The Committee and Past Officers," coupled with the name of Mr. Gates. Several other toasts were proposed and responded to. Professor Gullin most ably presided at the pianoforte, and much enhanced the pleasures of the evening.

THE BUOTT TESTIMONIAL FUND.

To the Chemists and Druggists of the United Kingdom.

GENTLEMEN,—A short time ago we appealed to you on behalf of this Fund. We now thank those gentlemen who have already responded.

We alluded to the ability, zeal, and devotion with which

the Secretary of the United Society of Chemists and Druggists had laboured to promote a Bill for the Incorporation of the Trade, a work for which he had a special fitness, and in which he had sacrificed his time, his health, and his means.

In this Bill for which he worked so hard and so successfully, there is no recognition of these services. We cannot, must not, for we have pledged our honour not to desert him at an advanced period of his life totally unprovided for.

In our former appeal we stated that the wear and tear of strife were telling fast upon him, and that plain symptoms of failing health were visible. But a greater, darker sorrow now hangs over him. His wife, the companion and friend of his life, his adviser and fellow-labourer in our cause, (for she gave her whole time and ability to the office work of the Society) has, within the last few days, been called from his side. Those who know how largely she possessed all the qualities that sanctify the character of a true-hearted woman can only know his loss.

Relying upon a thoughtful appreciation of this appeal to the justice and generosity of the Chemists and Druggists of the United Kingdom.

We are, Gentlemen,

(For the Committee)

Your obedient Servants,

HORATIO PASS, *Chairman.*

WILLIAM A. YEATS, *Hon. Sec.*

Office of the United Society of Chemists and Druggists,
18, New Ormond Street, W.C., London.

Remittances can be sent in Postage Stamps, or made payable by Cheque or Post Office Order, to Horatio Pass, to above Offices.

SUBSCRIPTIONS RECEIVED.

FIRST LIST.

	£	s.	d.		£	s.	d.
United Society of Chemists and Druggists. Voted at annual meeting, 1867	105	0	0	Gunn, John, Hambledon..	0	10	0
Hornby, E. P., President	3	3	0	Scott, W. H., Sandy ..	0	5	0
U.S.C.D. ..	3	3	0	Foster, J. A., Birmingham	0	5	0
Matthews, Henry, F.C.S., Past President, U.S.C.D.	5	5	0	Ball, Thomas, Brigg ..	0	5	0
Pass, Horatio, Vice President, U.S.C.D.	3	3	0	Robinson, W., Cockermouth	0	5	0
Barnaby, Henry ditto ..	2	2	0	Bell, George, Hexham ..	0	10	0
Linder, Charles ditto ..	1	1	0	Prior, Thomas, St. Ives ..	0	10	0
Fairs, Joseph ditto ..	3	3	0	Turner, W., St. Ives ..	0	10	0
Mellin, J. P., Wimbledon	5	5	0	Kirk, Charles, Kimberley	0	5	0
Shigg, J. T., F.R.A.S., Manchester	1	0	0	Rayner and Roberts, Rad-cliff Bridge ..	1	1	0
Holt, Edmund, Hon. Sec., Manchester	3	3	0	Williams, W. H., Hayle ..	0	5	0
Gibson, R., Manchester ..	1	1	0	Read, William, Helmsley..	0	5	0
Dobb, J. T., Sheffield ..	1	1	0	Skirrow, W. E., Bingley ..	0	5	0
Huddleston, R. O. Sheffield	0	10	6	Seward, William, Hereford	0	5	0
Anderson, T. S., London ..	3	3	0	Ashford, A. R., Honiton	0	5	0
Hepbell, Henry, London	0	10	6	Clift ..	0	5	0
Deere, J. L., London ..	0	10	6	Holt, Samuel, Liverpool ..	0	5	0
Croth, James, London ..	1	1	0	Farrer, Fred., Wrentham	0	5	0
Fisher, Charles, Rungate	1	1	0	Marley, W., Newcastle-on-Tyne ..	0	5	0
Milne, Patrick, Arbroath	0	10	0	Langford, J. B., Wellington, Somerset ..	0	5	0
Milne, George, Arbroath ..	0	5	0	King, William, Soham ..	0	5	0
Barley, J. G., Wokingham	0	10	0	Lloyd, Henry, Dawlish ..	0	10	6
Clark, G. C., Goolo ..	0	10	0	Crope, M., Saddleworth ..	0	5	0
Emerson, C., Hartlepool ..	0	10	0	Edisbury, John, Liverpool	1	1	0
Urell, J., Blackheath ..	0	5	0	Barrow, Edward, Kirkstall	0	5	0
Codd, Francis, Devonport	1	0	0	Jones, J. T., Millford Haven	0	5	0
James, Henry, Norwich ..	0	5	0	Anstey, J. U., Bath ..	0	5	0
Potts, R. S., Ilkeston ..	0	5	0	Drakeford, Sam., Stockport	0	5	0
Per Mr. Fairs, Newcastle-on-Tyne	0	5	0	Fennings, Alf., West Cowes	0	5	0
Gibson & Son, Hexham	1	0	0	Per Mr. Mauby, Southampton—			
Newbiggin, J. L., Alnwick	0	10	0	Manby, G., Southampton	0	5	0
Hood, James, Morpeth ..	0	5	0	Rubie, J. T. ..	0	5	0
Nunn, C. W., Hampton ..	0	10	0	Johns, J. T. ..	0	10	6
Watson, J. B., Chipping Preston ..	0	4	0	Hawkins, T. ..	0	5	0
Wiggins, H., Bermondsey	0	10	0	Handa, Jos., Campdon	0	3	0
Marshall, C. E., Mile-end ..	0	5	0	Hilledge, George, Preston	0	5	0
Mason, Arthur, Weymouth	0	10	0	Hilledge, John, Preston ..	0	2	6
Walker, B. A., Clapham-rd.	0	5	0	Linn, Ambrey, Chesham ..	0	10	0
Bird, Fredk., Coventry ..	0	5	0	Blaney, J. B., Haslingden	0	5	0
Congreve, G. T., Peckham	1	1	0	Finchall, William, Thornhill, N.B. ..	0	10	0
Gordelier, P. W. G., Sittingbourne ..	0	5	0	Gibbs, M. A., Tuxford ..	0	5	0
Wisker, Rob., Manchester	0	5	0	Cox, Henry, Westminster	1	1	0
Kenip, Robt., Holloway-rd.	0	10	6	Swan, Thos., North Shields	0	5	0
Hey, W. J., Holloway-rd.	0	5	0	Howard, J. H., North-leach ..	0	10	0
Smith, Wm., Nottingham	1	0	0	Abington, H. J., Ringstead ..	0	5	0
Elliot, George, Walsall ..	0	10	0	Richardson, James, Kingsland-road ..	1	1	0
Ault, John, Eastwood ..	0	5	0	Matthews, Simon, Lochlade	1	1	0
Waddington, B., Thornton	0	2	0	"Widow's Mite, A." 202, Caledonian-road ..	0	5	0
Wilks, Cutlbert, Lincoln	0	5	0	Williams, Elias, Carrigdundun ..	0	5	0
Balley, G. W., North Walsham ..	0	2	6				

	£	s.	d.		£	s.	d.
Mace, James, Bacup ..	0	5	0	McGeorge, W., Ockendon-	0	5	0
White, C. T., Ashford ..	0	5	0	stroot ..	0	5	0
Chio, G. M., Portsea ..	0	3	0	Campbell, E. K., Cam-	0	5	0
Jenner, C. U., Hailsham ..	0	5	0	bridge-road ..	0	5	0
Soole, J. H., Grays, Essex	0	5	0	Duncliffe, R., Manchester	1	0	0
Whineup, W., Essex-road	0	10	0	Horsley, John, Hartlepool	0	10	0
Lord, Samuel, Tottington	0	5	0	McVitie, Thos., Liverpool	1	0	0
Edwards and Son, Wellington	1	1	0	Henry, Andrew, Macduff	0	10	6
Salop ..	1	1	0	Vincer, Edwd., Sevenoaks	0	10	0
Cromwell, R.O., Newent ..	0	5	0	Gresty, Thos., Manchester	0	5	0
Bush, Thomas, Paulton ..	0	5	0	Wilson, Richard, Claycross	0	10	6
Miller, Edward, Liverpool	0	5	0	Crabb, Gillett, Cambridge	0	5	0
McMinn, Jas., Manchester	0	5	0	Jones, Frederick, Kentsh-	0	10	0
Skoulding, G. S. F., Yar-	0	5	0	town-road ..	0	10	0
mouth ..	0	5	0	Tweddell, James, Amblo	0	5	0
Christian, G., Godalming	1	0	0	Aekington ..	0	5	0
Parkinson, R., Liverpool	0	2	6	Allez, G. D., Guernsey ..	0	5	0
Per Mr. Johnson, Barnsley—				Joco, James, Bideford ..	0	5	0
Johnson, Fran., Barnsley	1	0	0	Morison, George, Peebles	0	5	0
Johnson, J. G. ..	1	0	0	Savidge, J. M., Nottingham	0	10	0
Horne & Milnes ..	0	10	0	White, J. M., Carmarthen	0	5	0
Ellison, J. B. ..	0	5	0	Stannard, F. J., Croydon	0	10	0
Mitchell, Joseph ..	1	0	0	Huggins, W. H., Wainfleet	0	10	0
Mellin, G., Titchbourne-st.	1	1	0	Per Mr. W. B. Harrison,			
Timms, Edwin, Worcester	0	5	0	Sunderland—			
Fridmore, Thos., Hineley	1	1	0	Harrison, Thompson,			
Fridmore, Wm., Hineley	1	1	0	Sunderland ..	0	10	0
Ireland, Will., Egremont	0	5	0	Harrison, W. B., Sun-			
Harris, Jos., Northampton	0	5	0	derland ..	0	10	0
Bell, Thomas, Ambleside	0	5	0	Scriven, W. C., Monk-			
McKenzie, T. St. Helens	1	0	0	wearmouth ..	0	10	6
West, Thomas, Stretford ..	0	5	0	Winslip, James, York ..	0	10	0
Bradley, T. D., Brighton ..	0	5	0	Priestley, J., Sunderland	0	5	0
Nichols, John, Stockton	0	2	6	Sidgwick, G. C. ..	0	5	0
Whooldon, J., Manchester	0	10	0	Nasbet, T. ..	0	5	0
Wickes, Chas., York-town,				Hodgson, R. ..	0	5	0
Surrey ..	0	10	0	Dodd, W. ..	0	2	6
Whitwell, G., Stourbridge	0	5	0	Lethe, John ..	0	2	6
Hedley, John, Houghton-				Vivond, J. M. ..	0	2	6
le-Spring ..	0	2	6	Bird, W., Monkwear-			
Robson, Matthew, Howden-				month ..	0	5	0
on-Tyne ..	0	5	0	Turnbull, H. J., Sunder-			
Hudson, Thomas, South				land ..	0	5	0
Shields ..	0	5	0	Sayer & Gilbert, Monk-			
Graham, T. R., Guisb'ro' ..	1	0	0	wearmouth ..	0	10	6
Lloyd, T. W., Swansea ..	0	10	6	Miller, William, Winklaton	0	5	0
Scott, Joel, Market Harbro'	0	10	6	Evans, Abdell, Ewell ..	0	5	0
Goring, Richard, Preston	0	10	0	Wright, W.O., Liverpool ..	0	2	6
Per Mr. Mitchell, Bristol—				Alexander, W. B., Hunt-			
Caird, Alexander, Bristol	0	5	0	ingdon ..	1	1	0
Collings and Co. ..	0	10	0	Bull, Benjamin, Royston	0	10	6
Troak, R. J. ..	0	5	0	Dunn, Daniel, Haxby ..	0	5	0
Mitchell, Walter ..	0	2	6	Cox, A., Dudley ..	0	5	0
Matthews, Henry ..	0	5	0	Pearce, Jos., Crewkerne ..	0	10	0
Kulight, Matth., Brongham	0	5	0	Stimpkins, John, Minebin-			
Beaven, G. A., Cowes, I.W.	0	5	0	hampton ..	0	5	0
Hammerton, Edward, Col-				Margetson, James, Bristol	0	10	6
chester ..	0	10	6	Saxton, John, Leeds ..	0	7	6
Eckersley, Joseph, Oldham	0	2	6	Hall, Jn., Gatehouse, N.B.	0	5	0
Leggott, William, Goole ..	0	5	0	Doble, H. T., Tavistock ..	0	2	6
Massey, John, Manchester	0	10	0	Macpherson, Alexander,			
Woolcott, C., Leamington	0	5	0	Stornaway, N.B. ..	0	2	6
Russell, C. R., Walthworth	1	1	0	Meadows, T. S., Wantage	0	10	0
New, W. W., Essex-road	0	5	0	Moore, Joseph, Pembroke			
Donbigh, M. L., Burnley ..	1	0	0	Dock ..	0	10	6
Jones, Jos., Manchester ..	0	5	0	Thomas, G. J., Southmolton	0	10	0
Whittles, H., Birmingham	0	5	0	Priugle, G., Walthamstow	0	5	0
Faige, J. A., Southmolton	0	5	0	Sanders, W. E., Liverpool	0	10	0
Blain, A. H., Liverpool ..	0	10	0	Hughes, Edw., Llanelly ..	0	5	0
Oldham, John, Maudsfield	0	10	0				

BANKRUPTCY.

IN RE WILSON AND MONEY, COD-LIVER OIL MANUFACTURERS.

These bankrupts (Robert Wilson and James Craig Money), who carried on business as cod-liver oil manufacturers and commission agents, at Kinning Park, Glasgow, have been examined before Sheriff-Principal Bell. In the course of interrogation by Mr. Naismith, writer, on behalf of H. Martini and Company, Robert Wilson, one of the bankrupts deposed that his firm, in February, 1867, handed over their whole stock of cod-liver oil to Mr. Robert Todd, a partner of the firm of M. Parker and Company, Edinburgh. We handed it over (the bankrupt went on to say) on the arrangement that he was to dispose of it, and divide the proceeds amongst the firm's creditors. I understand he has disposed of the great bulk, if not all, of the stock. What price has been got for it, I do not know; but he mentioned that for part of it he had got 3s. 6d. per gallon. He signed no document that I know of; but my partner, Mr. Money, and I signed a writing which he got. I authorised him to collect the whole of the debts. I believe he has collected none of them, save one, amounting to a very small sum. He got the wooden house, casks, etc., mentioned in the state of affairs. Mr. Todd was not to account to me or my partner for his intromissions. Except Mr. Martini, all our creditors

were aware of, and acquiesced in, our handing over the assets of our firm to Mr. Todd. It was in June, 1866, we commenced business. Neither of us had any money, but Mr. Money had a going business previously. In our ledger credit is given of the assets of that business. The amount is £88 9s. 3d. The state of affairs shows, of liabilities, £921 15s. 2d., and of assets, £586 18s. 10d. The deficiency I account for by depreciation in stock. The bad debts are few in number. In April last, the wooden house and utensils were sold by auction, and realized about £25. Being interrogated—Why have you entered them in your state of affairs at £100? The bankrupt said, "They were entered by Mr. Money in our books at that sum, and I did not object to it. I find that the entry, or rather entries, in the books amount to £88 9s. 3d. It was our proposal to Mr. Todd that he should get the stock and dispose of it. The document which was signed bore that he would pay the debts of the firm, as far as the proceeds would go. I sold, in February, 1867, a cottage in Dick-place, Grauge, Edinburgh, and also a tenement of dwelling-houses in Leith Walk there. For the cottage, I received £685; there were two bonds upon it, amounting to £650. The dwelling-houses realized £2,025; on the tenement there was a bond of £1,800. I think those sales were a month after I had handed over our stock to Mr. Todd. The balance of the price from the properties I did not hand over to him. I have been living on the money since that time. There is none of it remaining. These properties were sold by private bargain. Mr. Todd and the trustee were aware I had property." James Craig Money, the other bankrupt, deposed—"In the deposition made by the other bankrupt, I concur, except in his account of the deficiency of our estate. The sum we expended in utensils amounted to £179 14s. 2d., and in workmen's wages, freight, and repairs of building, we expended £154 4s. 1d. The whole utensils were not sold by auction. Those that were sold remained with me up till the date of sale. Along with the oil, a considerable portion of these were taken through to Mr. Todd. What was done with them, I do not know. The goods were forwarded to Mr. Todd, 26, Gile-street, Leith. At that time, his firm of M. Parker and Company was dissolved. The only document which passed between me and Mr. Todd was a notice of the dissolution of our firm, which was signed by Mr. Wilson and myself, in his presence, and handed to him. This note bore that, in my own name, I was to continue the business; but that the debts of Wilson and Money were to be paid by Mr. Todd, and that by him the debts due to the firm were to be received. We believed we were at this time solvent. If any surplus had arisen in the realization of the estate, it was to have been equally divided between Mr. Wilson and myself. The examination was closed.

GOSSIP.

From the 1st inst., the following new Acts of Parliament take effect:—County Courts Act, Worship Regulation Act, Factory Act Extension, Agricultural Gaugs Act, Merchant Shipping Act, and Sales of Reversions Act.

At a special court of Governors of Charing Cross Hospital, held on the 30th ult., Dr. Tilbury Fox was unanimously elected to the post of physician in charge of a special department recently organised, on the recommendation of the Council of the Hospital, for the treatment of diseases of the skin.

The *Pall Mall Gazette* calls attention to a new method of preserving milk, which has been introduced by the Anglo-Swiss Company, whose factory is situated on the lake of Zug. The process adopted is simply the abstraction of the watery particles from the milk, and the addition of beetroot sugar. Milk thus prepared remains good for months after the tins in which it is packed have been opened, becoming neither sour, mouldy, nor rancid. It bears the ordinary changes of temperature without injury. It is sold in tins, each containing the equivalent of rather more than half a gallon of good milk, of about the quality of the best country milk. The price of the tin is 1s. 3d. The cost of the tin being a penny, and the duty being a penny, the price of the condensed milk when diluted for use with five parts of water is 6d. a quart. About one-third of a pound of beetroot sugar is introduced into each tin. The use of

this preserved milk is increasing in England. Last month the Company sold, for home use and exportation, 1,250 dozen tins. The Peninsular and Oriental, the Royal Mail, and the Pacific Mail companies use it in all their steamers.

Adelaide Loux has been sentenced, at the Dover Quarter Sessions, to twelve months' imprisonment with hard labour, for cruelty towards her daughter Agnes, aged seven years. It was proved at the trial that systematic cruelty had been long practised towards the child. Her hands had been tied behind her for whole nights; she had been periodically pumped upon; her body was covered with bruises; and over open wounds made by blows with a hairbrush, chloride of lime had been rubbed. The prisoner and her husband occupied a respectable position in Margate.

TRADE CHANGES.

Mr. John Wade has removed from 98, York-street, Westminster, in consequence of the Metropolitan District Railway Company requiring his premises, and is now residing at 174, Warwick-street, Piccadilly, S.W., where he continues his practice as dentist and dispensing chemist.

Mrs. Austin has taken into partnership her two sons, Henry Felix Austin and Edwin Austin, for conducting the business of manufacturing chemists and druggists, heretofore carried on by her late husband, Mr. Henry Austin, at 125, and 126, Bermondsey-street, S.E., under the title of H. Austin and Co.

COMMERCIAL INTELLIGENCE.

The *Journal de St. Petersburg* announces that the New Russian Customs' Tariff will not be brought into operation till the 1st of January, 1869.

Her Majesty's Charge d'Affaires at Guatemala, reports that,—“by a decree of the President of Honduras, dated the 10th of September last, the duty payable on the exportation of indigo is reduced from four rials (2s.) to one rial (6d.) per arroba, or weight of 25 lb. By the same decree a fine of 10 dls. is imposed on those who adulterate the article, and the indigo adulterated is declared to be confiscated; finally workmen employed in its cultivation are exempted from military service.”

The Spanish Government, by a decree dated December 10, have sanctioned the importation of grain and other articles (including olive oil, guano, and artificial manures) into Puerto Rico and the Philippine Islands free from duty, whether imported by native or foreign vessels, for the purpose of remedying, as far as possible, the damage caused by the inundations, hurricanes, and earthquakes, which have taken place in those islands. The decree provides that the duties formerly in force on the before-mentioned articles, shall not be reimposed, either wholly or in part, without eight months' previous notice being given.

GAZETTE.

PARTNERSHIPS DISSOLVED.

ALLEN, STOCKTON, and ALLEN, Dudley, lemonade manufacturers; as far as regards F. Stockton.
BREKATON and HAINLEY, Beverley, surgeons.
BRETHERTON and THURSTON, Liverpool, veterinary surgeons.
BROWN and MILLER, Chester, soda water manufacturers.
CANNINGTON, SHAW, and Co., St. Helen's, Lancashire, glass bottle manufacturers; as far as regards F. D. Nuttall.
FINCH, MOON, and DUNCAN, Blackheath and Greenwich, general practitioners; as far as regards P. M. Duncan.
GARLAND and Co., Macclesfield, manufacturers of size.
HALL and HEATON, Batley, Yorkshire, chemists.
HAYNES, NEW, and HAYNES, Evesham, Worcestershire, apothecaries.
JOHNSTON and GREENE, Birmingham, surgeons.
KNOTT and THORN, Great Arthur-street, Goswell-road, Flint glass blowers.
LEIGH and NICOL, Leeds, dentists.
PARKER, AMES, and HOUGHTON, Old Ford, manufacturing chemists; as far as regards W. Houghton.
RANDLSON and FORSTER, Whitehaven, chemists; as far as regards J. Forster.
WILLIS and ROBERTS, Manchester, tobacco manufacturers.

BANKRUPTS

BAKER, BENJAMIN, Wellclose-square, surgeon.
BENNETT, THOMAS, Nottingham, tobacco mist.
DICKSON, JOHN FARMERLEY, late of Leicester, manufacturing chemist.

FLINTOFF, THOMAS HEBBERN, Sunderland, soda water manufacturer.
HARRINGTON, JOHN, Brighton, architectural photographer.
HOARE, R., late of Plymouth, manure merchant.
HURDON, JAMES, Exeter, chemist.
MARKHAM, JOSEPH, Banham, manure manufacturer.
MURRAY, ERNESTER, Ramsgate, photographer.
PARSONS, JOHN, Bury St. Edmunds, dental surgeon.
PAPINEAU, WILLIAM, Ironsley, near Bow, manufacturing chemist.
PHILLIPS, T., Aston-juxta-Birmingham, chemist.
SHIPLEY, GERMAN W., Nottingham, soda water manufacturer.
SMITH, GEORGE, late of Ventnor, Isle of Wight, dealer in artificial manure.
SMITH, W. A., Flushing-square and Enfield, physician.
STANGER, GEORGE EATON, Nottingham, surgeon.
TUCKER, HENRY, Durham-road, Holloway gold beaters' skin manufacturer.
WERN, G., Mount-terrace, Lower Wandsworth-road, surgeon.
WILLIAMS, CHARLES FOSTER, late of Portsmouth, assistant-surgeon Royal Navy.

SCOTCH SEQUESTRATIONS.

BAIR, J., Glasgow, tobaccoist.
MALISTER, M. N., Strath, Isle of Skye, surgeon.

CAPITAL AND LABOUR.—In these days of strikes and trades unions, of Fenian outrages and disaffection, it is quite refreshing to find an instance of kindly feeling between large employers of labour and those in their service, such as we have now to record. On Saturday evening, January 4, about 100 persons connected with the *Plumbago Crucible Works*, sat down to a very handsome and substantial entertainment provided for them at the “Star and Garter,” Battersea, by the liberality of the Patent Plumbago Crucible Company. The chair was very efficiently occupied by Mr. Morgan, the head of the firm, who, in a few appropriate words, proposed the health of “Her Majesty the Queen,” which was drunk with the usual honours. On the “Health of the Firm” being given, the chairman said, that eight years ago when they first commenced holding these annual gatherings, they could only muster 13 persons. They had gone on increasing year by year, and he believed that if everything went on satisfactorily, the number now before him would be increased one-half by this time next year. The firm had met with many obstacles, partly from the difficulty of obtaining good raw material, and partly from the increased price they had to pay for it, but he hoped these obstacles were now surmounted as the new patented process for purifying the plumbago appeared to answer well; and if they could only secure the hearty co-operation and goodwill of all in their employ, he had no doubt they should continue to pull together for many a long year to come. Nothing would tend more to promote this unanimity, than the feeling that the interests of both employers and employed, were identical. He concluded by heartily wishing them all “A Happy New Year.” The remainder of the evening was devoted to songs and recitations, and the meeting, which was characterized throughout by the utmost cordiality and good feeling, broke up about midnight.

FRENCH HOSPITAL.—A dinner was given on Saturday evening, the 21st ult., at Verrey's Café, Regent-street, in aid of a London hospital open to all foreigners speaking the French language, when the chair was taken by M. Devaux. A French dispensary, established in 1861, has rendered gratuitous medical aid to more than 7000 sick and indigent persons, and last year it was determined to found a hospital, in order to complete the work commenced in the dispensary, and to offer to those speaking the French tongue the succour which the Germans have for many years provided for persons of that nation. The French Government promised an annual grant, and the appeal to the French in London was so generously responded to that the committee felt justified in beginning operations at once, by hiring a commodious house at the corner of Lisle-street and Leicester-place, in the centre of the French quarter, where patients are attended by two French physicians of eminence. Among the subscriptions which have been already received are the following:—The French Embassy, £48; Notre Dame de France (Leicester-square), £50; le Comte de Paris, £42; Duc de Chartres, £42; Duc de Nemours, Duc d'Alençon, Princess Marguerite d'Orleans, £52; Prince de Joinville, £42; Duc d'Aumale (annual subscription), £100; Prince de la Tour d'Auvergne, £10; Duchess of Newcastle, £50; Madame Hope, £50; Baroness Meyer de Rothschild, £10; and MM. Devaux et Cie., £25. It appeared from the statement of M. Rimmel, the hon. secretary, that the hospital and dispensary are under the same roof, and offer to patients the advantage of a consultation-hall, a pharmacy perfectly

organised, fourteen beds, and four chambers allotted to persons who, having some small resources, may be able to pay a moderate weekly sum towards their maintenance. It was also announced that the French and other residents at Hongkong had remitted a sum of 5,000 fr. for the hospital through M. de Neuwitt, Chancellor of the Consulate.



SALE OF MINERAL OILS.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

DEAR SIR,—I beg to call your attention to the fact that the police have received orders to make inquiries in counties and boroughs, and to report the names of all dealers in paraffin oil and petroleum, with the intention of enforcing the statute 25 and 26 Vict., cap 66.

If you can give any information on that matter, in your next issue, it will be very acceptable to chemists in general, and, in particular, to your obedient servant,

Stockbridge, January 1.

T. MANN.

[Our correspondent will find an abstract of the statute in another column.]

A CHEMICAL DICTIONARY.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—I take the opportunity, before the issue of the CHEMIST AND DRUGGIST in its new dress, to submit a matter to your consideration, which, in my humble opinion, may be regarded as an important desideratum, in reference to the general body of chemists and druggists throughout the United Kingdom.

We want a chemical dictionary, more especially for the use of the *counter* chemist—allowing such term to embrace alike both principal, assistant, and apprentice. Those elaborate and excellent works by Ure, Watts, and others, do not supply the want which I wish to indicate,—something more concise and “ready-at-hand” being greatly needed. And it should be purely a “Dictionary”—a glossary of chemical terms, adapted to the present advanced position of the science, appending their lingual derivatives and symbolic representatives. I would propose that two letters of the Alphabet, with their respective contents, be presented with each month's issue of the journal, which, continuing throughout the year, would form a volume of no secondary import to its literary and scientific contributor (or contributors), and would prove an immense boon to the parties more immediately concerned. Nor could the undertaking, in a commercial point of view, be unattended with the most satisfactory results.

The duodecimo, or pocket size, would, as it appears to me, be the most suitable; and let it be printed in a detached form for enclosure in each number of the journal.

Surely, in the able hands (singly or otherwise) of such men as Atfield, Brady, Brough, Carteghe, Draper, Ince, and of many others, the work would be accounted but as a pleasant pastime.

Not being aware that any book at present exists agreeing in all the points I have mentioned, I trust the matter will commend itself both to your approval and support.

In conclusion, I would further suggest that a chronological record of celebrated chemists of the present century, and of the present day, noticing their individual discoveries in chemical science, be added as an *Appendix* to the whole work.

I remain, Sir,

Yours respectfully,

J. W.

London, December 23, 1867.

[We thank our correspondent for indicating a real desideratum, but it would be unwise to commence such a work as he describes, without a well-devised plan. We promise him, however, that his admirable suggestion shall have our earnest consideration.]



CHEMICALS.

THE prices obtained for chemical products are still most discouraging to manufacturers, but there are some signs of improvement. The chemical trade of the past year was seriously affected by the general commercial stagnation, and by the abnormal activity of producers. Tempted by the high prices of 1866, manufacturers sent very large supplies into the American and home markets, and stocks held at high rates were continually being brought forward. The natural result of overstocking the markets when they were suffering from the prevailing depression, was a great reduction of prices. Still, in spite of adverse circumstances, the amount of actual business done in chemicals throughout the year has been a fair average. It is to be hoped that the general trade of the country will gradually recover its old elasticity, and that that branch of it which is the subject of this report may become more vigorous than ever. In rough chemicals there has been a serious decline of prices. SODA ASH, the most important product of our great alkali works opened at 2½d. per degree, but the fraction gradually became smaller, and disappeared altogether before the close of the year. The present quotation is 2d. The higher quality, No. 1, has of course, fallen in price proportionally, and now stands at 2½d. The manufacture of CAUSTIC SODA increased considerably during the year, but its price fell from 19s. to 15s. 6d. In SODA CRYSTALS the demand was quite equal to the production. The highest quotation during the year was £5 17s. 6d. in January and March, the lowest, £4 10s. in October. At present the price is £4 15s. ex ship, the product being in moderate request. BICARBONATE suffered greatly from the absence of the American demand and from re-sales. In January last it was quoted at 18s. 6d., and each month following marked a decline of about 6d. per cwt., its present price being 13s. landed. BLEACHING POWDER has been in fair request throughout the year; during the first six months it remained stationary at 14s. 6d. per cwt., from which price it gradually fell to the present quotation of 10s. to 11s., the supply far exceeding the demand. During the past week 11s. has been paid for the whole of the present year.

TARTARIC ACID, partly owing to the low price of tartar, and partly to the general causes above noticed, declined in price to the extent of 2d. per lb. Foreign has lately been sold at 1s. 1½d., and English at 1s. 2d. OXALIC ACID and SAL ACETOS have been in limited request, and the prices obtained during the last six months must have proved unremunerative to the manufacturers. In January the former was quoted at 10½d., the latter at 1s. 0½d. (2d. per lb. is the usual difference between these products). At present the quotations are respectively 8½d. and 10½d. It is probable that an advance will be agreed upon by the manufacturers. CITRIC ACID has not varied much. At the present price of lemon-juice it cannot well be made for less than 1s. 11½d. per lb., its lowest quotation.

The salts of POTASH have also felt the same depressing influences. BICROMATE is now quoted at 5d. (less 7½ per cent.); CHLORATE at 11½d. to 1s.; YELLOW PRUSSIAN at 1s. to 1s. 1d. The variations in the price of SULPHATE OF COPPER have not exceeded 1s. 3d. per cwt. It is now quoted at 25s. to 25s. 6d., but there have lately been some sales at 24s. Some of the salts of AMMONIA were in great demand, and the price of SULPHATE rose considerably. The present quotation for this product is 13s. per cwt. CARBONATE remained at 5d. per lb., with a variation in discount of 5 to 10 per cent., as orders influenced the demand. It is now firm at 5½d. per lb. SAL AMMONIAC, contrary to the rule of the last two or three years, did not remain stationary, but owing to over-production, and the absence of unanimity among the makers, gradually gave way. In January firsts were at 37s. 6d., seconds at 35s. 6d.; but these prices have fallen to 34s. 6d. and 33s. 6d. respectively.

ALUM maintained one uniform quotation from January to December. The renewal of Indian, and increase of home orders kept manufacturers fully employed; indeed, the

demand exceeded the supply, and many orders have been reluctantly incompleted. The make is now increased, and the supply nearly equal to the demand. CREAM OF TARTAR fluctuated considerably in price, and is now sold at a loss to the importers. The stock being greatly reduced, we may reasonably expect an improvement soon. GREEN COPPERAS (sulphate of iron) has been in increased demand. In January last, it was quoted at 60s. per ton, in February at 55s., from March to June at 60s. to 65s., and from July to December at 55s. to 60s., present quotations.

SULPHATE OF QUININE (Pelletier's) was at 4s. 4d. per oz. in January last, and advanced to 4s. 9d. in February; but declined in April to 4s. 7d., and from that point to its present price, 4s. 2d.

IODINE was steady, with but few transactions. Its present prices, 9½d. to 9¼d. per oz., are too low for the producer. MERCURY has continued stationary from last February, at £6 17s. per bottle. BRIMSTONE varied little in price. The importation was about 50,000 tons, of which 14,000 were sent to London direct, 25,000 to Liverpool, and the remainder to the outports. Refined Roll continued at one price. Sublimed Sulphur was in great request, and the prices were well sustained.

DRUGS.

In the drug market, prices, as a rule, have had a downward tendency during the year just passed; but, in certain articles, a noteworthy improvement has lately taken place. OPIUM (fine Turkey) has advanced in price considerably since the publication of our last report, when it was quoted at 16s. to 17s. per oz. Much business has lately been done in this product at 17s. 6d., and holders now ask 18s. to 19s. Some good sales have been effected at the latter price. Egyptian remains stationary at 3s. 6d. to 7s. CAMPHOR has declined to £6 15s. (China) and £7 (Japan). Good prices were, however, obtained for Refined, the highest being 1s. 11d., and the lowest 1s. 8d.; the present quotations are 1s. 10d. to 1s. 10½d. Though the trade of the month in the chief medicinal substances has been very dull, there have been some important sales of certain useful products. Thus, last week a rather large supply of SHELLAC, amounting to 739 chests, was brought forward, and met with a good demand. In auction, an extensive supply of ISINGLASS, chiefly Russian, has been offered. Brazil, fine lump, sold at 3s. 11d. to 4s., middling to good at 3s. 5d. to 3s. 9d., ordinary at 3s. 1d. to 3s. 2d., very small ordinary 2s. 4d. to 2s. 10d. The first public sales of COCHINEAL held went off buoyantly, though the prices showed a decided decline, and 555 bags were sold. The prices of the different sorts ranged from 2s. 10d. to 3s. 11d. per lb. CARDAMOMS have been selling at firm prices; Madras, good and middling, fetching 5s. 10d. to 5s. 11d. per lb. JALAP has been sold at 3s. 6d. to 4s. per lb. A large quantity of NUX VOMICA fetched 15s. per cwt. CASTOR OIL has been bought in at 6½d. per lb., and CASTLE SOAP at 40s. per cwt. Considerable business has been done in GINGER (African) at 30s. to 31s. 6d., and in CINNAMON (Ceylon, seedless) at 2s. 2d. to 2s. 3d., (thirds) at 1s. 11d.

OILS.

LINSEED OIL attracted little attention during 1867, and the fluctuations were slight and gradual. Excepting in June, when an urgent want of ready oil for the United States set in, we have never had animated markets, and we are sorry to see a further decreasing general export demand, as shown by the trade returns for the year. We believe this, however, has been counterbalanced by an increased home consumption, for, with a total undiminished make, stocks in first hands are even less than those held at the beginning of last year. £37 was the opening price, and it was maintained with an occasional drop of 20s. per ton until the summer, when the cause above alluded to improved the price to £40; it afterwards declined to £39, and further to £37 in September, but the small make of the two or three previous months caused a reaction to £39 in October, after which it gradually dwindled to £34 10s., at which price it is now obtainable. The transactions which took place in RAPE OIL during the past year were large, but owing to the general stagnation which prevailed, many who had bought oil for higher prices, not being able to hold their goods, pressed them for sale, and thus kept the market in check. English

brown Oil fluctuated between £35 to £38 10s. per ton, for spot, during nearly the whole year; except in October, when it reached £39 10s. to £40, but immediately afterwards, fell in value per ton for spot. The present quotations are £34 10s. to £34 15s., and to £35 for February, per ton. In consequence of considerable quantities of East India rapeseed being shipped to the Continent, a good deal of the foreign brown oil imported was made from East India and Continental seed, instead of being crushed entirely from the latter, this resulted in foreign oil only ruling at about 10s. per ton over English made. Foreign refined has been slow of sale, and offers now on spot at £38 to £39, English £37.

A very large business was done in refined CORTEX OIL during the past year. The quotations ranged between £34 10s. and £37 during the first six months of the year, after which the price advanced to £40 in October and November; but during December, declined to £38. It may now be bought on the spot at £37, and at £36 to £36 10s. for delivery January to June. The Crude Oil was influenced by the fluctuations in the price of seed, and £30 per ton had lately been taken. A quantity of Madras GROUND NUT OIL was received from France during the year. It was of very fine quality, and realized from £54 to £60 per ton. POPPY OIL is quoted at £41 to £42.

IN OLIVE OILS there were but small fluctuations of value during the months of January to July, but the very small stocks and high prices at ports of shipment attracted the attention of buyers, who cleared the market and caused Mogadore, which was only worth £55 in June to advance to £60 in August, £64 in September, and £66 in October; the market then became rather easier, and in November the value was £62. The present quotations are £62 to £63 per tun. The highest and lowest points reached for Gallipoli were £70 in October, and £62 per tun in January; other sorts were proportionally influenced. Several parcels of Seville were sold last week at £65 and some at £66; Malaga has been sold at £67, and £68 is now demanded. Cephallenia, Malta, and Lisbon have changed hands at £65 10s.

COCOANUT OIL last year opened with high prices, the stocks being chiefly in the hands of speculators. Cocbin was at £61 per ton, and Ceylon at £51 in January last; but these prices fell to £55 and £49 respectively in June. The quotations are now £56 to £56 10s. Ceechin, and £50 to £51 Ceylon. Sydney has been bought in at auction at £49.

IN PALM OIL the highest point reached for Lagos was £42 10s. to £43 per ton in October, and the lowest £40 in November. There have lately been sellers at £40, but little business has been done: 100 casks in public sale were nearly all bought in at that price.

The trade in FISH OILS was very unsatisfactory.

SPEERM quoted at £125 per tun in January, advanced to £140 February, March, and April, causing a free use of all kinds of substitutes, and a speedy reaction; in August and September £105 was accepted; there are now sellers at £110. In public sale last week 42 tuns met no demand, and were bought in. Common Oils have attracted no attention, Cotton and other descriptions of seed oils having thrown them comparatively out of consumption.

PETROLEUM (REFINED) at the commencement of last year was quoted at 1s. 5d. to 1s. 6d. per gallon, and at the present time at 1s. 3½d. to 1s. 4d., prices which are much in the buyers' favour. The absurdly low price of 1s. per gal. was in one instance accepted. The market for American Refined has been rather depressed of late. Prime White (1000 barrels) was not long ago sold at 1s. 4½d. per gallon, and S.W. (800 barrels) at 1s. 4d. Since then, 1s. 3½d. per gallon has been accepted for another cargo of about 1200 barrels S.W.

Up to the month of August, the price of PETROLEUM SPIRIT was about 8d. per gallon, but since then, in consequence of a very large demand for burning purposes, and there being no stocks, prices rapidly advanced to 2s. 2d. per gallon; this has induced shipments from the United States, so that the price is easier. The present quotations are 2s. to 2s. 1d.

The low price of Petroleum has seriously affected the REFINED COAL and PARAFFIN OIL trade. The number of refineries at work in Scotland at the beginning of 1867 was twenty; of these nine have entirely ceased working. The estimated production of Refined Oil has been the very limited quantity of about 160,000 barrels, which has nearly all been sold.

Monthly Price Current.

[The prices quoted in the following list are those actually obtained in Minding-lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.]

CHEMICALS.

ACIDS—	1868.		1867.	
	s. d.	s. d.	s. d.	s. d.
Acetic per lb.	0 4	0 0	0 4	0 0
Arsenious (see Arsenic)				
Citric per lb.	1 11½	2 0	1 11½	2 0
Nitric "	0 5	0 5½	0 5	0 5½
Oxalic "	0 8½	0 8½	0 10½	0 11
Sulphuric "	0 0½	0 1	0 0½	0 1
Tartaric crystal ..	1 1½	1 1½	1 3½	0 0
powdered ..	1 2	0 0	1 4	1 4½
ANTIMONY, ore..... per ton	260 0	0 0	180 0	200 0
crudo .. per cwt	19 0	20 0	23 0	24 0
regulus ..	45 0	0 0	33 6	0 0
star ..	45 0	0 0	33 0	0 0
ARSENIC, lamp.....	10 0	15 6	15 0	15 6
powder.....	7 3	7 6	6 9	7 0
ASHES (see Salts).....				
BRIMSTONE, rough .. per ton	132 6	0 0	130 0	0 0
roll .. per cwt	10 3	11 0	10 3	0 0
flour.....	14 0	14 6	12 6	0 0
IODINE, dry per oz.	0 9½	0 9½	0 0½	0 9½
IVORY BLACK, dry..... per cwt.	0 0	0 0	8 0	0 0
MAGNESIA, calcined .. per lb.	1 6	1 8	1 6	1 8
MERCURY..... per bottle	137 0	0 0	137 6	140 0
MIXIUM, red per cwt.	21 6	22 0	21 6	22 6
orange ..	33 0	0 0	32 6	0 0
PRECIPITATE, red .. per lb.	2 0	0 0	2 6	2 6
white ..	2 5	0 0	2 5	0 0
PRUSSIAN BLUE ..	1 0	1 10	1 0	1 10
SALTS—				
Alum per ton	150 0	155 0	150 0	155 0
powder	170 0	175 0	170 0	0 0
Ammonia:				
Carbonate per lb.	0 5	0 5½	0 5	0 5½
Hydrochlorate, crude,				
white..... per ton	400 0	500 0	400 0	500 0
British (see Sal Ammoniac)				
Muriate (see Hydrochlorate)				
Sulphate per ton	240 0	230 0	200 0	0 0
Argol, Cape per cwt	65 0	75 0	75 0	85 0
France ..	48 0	70 0	56 0	76 0
Oporto, red ..	26 0	28 0	30 0	32 0
Sicily ..	50 0	55 0	63 0	70 0
Florence, white	75 0	80 0	85 0	90 0
" red ..	65 0	70 0	77 0	80 0
Bologna, white ..	78 0	80 0	87 0	00 0
Ashes (see Potash and Soda)				
Bleaching powd. .. per cwt.	10 0	10 0	14 0	15 0
Borax, crudo ..	25 0	55 0	25 0	45 0
(Tineal) ..	35 0	52 6	35 0	52 6
British refined ..	50 0	56 0	70 0	0 0
Calomel per lb.	2 5	0 0	2 5	2 6
Copper:				
Sulphate per cwt.	25 0	25 6	25 6	0 0
Copperas, green .. per ton	55 0	60 0	52 6	55 0
Corrosive Sublimate .. p. lb.	1 11	0 0	1 11	0 0
Epsom Salts per cwt.	8 6	8 9	8 6	2 0
Glauber Salts ..	5 6	6 0	5 6	0 0
Lime:				
Acetate, white, per cwt.	13 0	21 6	21 0	18 0
Magnesia:				
Carbonate.....	42 6	0 0	42 6	45 0
Potash:				
Bichromate per lb.	0 5	0 0	0 5½	0 5½
Carbonate:				
Potashes, Canada, 1st				
sort per cwt.	33 6	0 0	35 6	0 0
Pearlashes, Canada, 1st				
sort per cwt.	37 0	0 0	42 6	43 0
Chlorate per lb.	0 11½	1 0	1 0½	0 0
Hydriodate (see Potassium, Iodide)				
Muriate (see Potassium, Chloride)				
Prussiate per lb.	1 0	1 1	1 1	0 0
red ..	1 9½	1 10	1 9½	1 10
Tartrato (see Argol and Cream of Tartar)				
Potassium:				
Chloride per cwt.	8 3	8 6	8 0	8 6
Iodide per lb.	11 9	0 0	13 0	0 0
Quinine:				
Sulphate, British, in				
bottles per oz.	4 7	4 10	4 0	5 0
Sulphate, French ..	4 2	4 3	4 4	4 5
Sal Acetate per lb.	0 10½	0 0	1 0½	1 1
Sal Ammoniac, Brit. cwt.	23 6	24 6	35 0	30 0
Saltpetre:				
Bengal, 6 per cent. or				
under per cwt.	19 2	19 0	19 6	10 0
Bengal, over 6 per cent.				
per cwt.	10 0	10 3	18 6	19 3
Madras.....	13 0	19 0	18 6	19 0
Bombay and Kurrachies				
per cwt.	17 0	18 0	15 0	18 0

DRUGS.

	1868.		1867.	
	s. d.	s. d.	s. d.	s. d.
European.....	21 0	22 6	20 0	22 0
British, refined ..	23 0	23 0	23 3	23 0
Soda:				
Bicarbonate....	13 6	0 0	19 0	9 0
Carbonate:				
Soda Ash..... per deg.	0 2	0 0	0 2½	0 0
Soda Crystals per ton.	95 0	0 0	120 0	0 0
Hyposulphite .. per cwt.	19 0	19 9	19 0	0 0
Nitrate ..	10 0	11 6	11 0	12 6
Verdigris per lb.	0 11	1 0	0 11	1 0
SUGAR OF LEAD, White, cwt.	37 0	37 6	38 0	0 0
Brown ..	28 0	29 0	27 0	27 6
SULPHUR (see Brimstone)				
VERMILION, English .. per lb.	2 9	3 4	2 9	3 2
China.....	2 9	3 0	2 0	2 9
ALGEE, Hepatic..... per cwt.	90 0	180 0	80 0	180 0
Socotrine ..	180 0	295 0	180 0	300 0
Capo, good ..	30 0	32 0	34 0	36 0
Barbadoes ..	75 0	220 3	60 0	200 0
AMBERGRIS, gray per oz.	32 0	36 0	35 0	0 0
BALSAMS—				
Canada per lb.	1 5	1 6	1 8	1 9
Cupiri ..	1 7½	1 8½	1 8½	1 9½
Peru ..	8 0	0 0	5 3	0 0
Tolu ..	2 4	2 6	3 6	0 0
BARKS—				
Canela alba per cwt.	22 0	27 0	40 0	70 0
Cascarilla.....	18 0	23 0	18 0	29 0
Peru, crown & grey per lb.	1 3	2 1	1 2	2 3
Calisaya, flat ..	2 6	2 8	2 6	2 7
quill ..	2 3	2 7	2 0	2 6
Carthagea ..	0 9	1 6	0 10	1 6
Pitayo ..	0 9	1 8	0 7	2 0
Red ..	2 6	10 0	2 6	12 0
Busho Leaves ..	0 2½	0 0	0 3½	0 10
CAMPOR, China .. per cwt.	135 6	0 0	142 6	145 0
Japan ..	140 0	0 0	147 0	0 0
Refin Eng. per lb.	1 10	1 10½	1 11	0 0
CANTHARIDES ..	1 10	1 11	2 2	2 5
CHAMOMILE FLOWERS p. cwt.	45 0	80 0	40 0	120 0
CASTOREUM per lb.	5 0	32 0	1 0	20 0
DRAGON'S BLOOD, reed p. et.	190 0	230 0	200 0	280 0
lump ..	100 0	230 0	00 0	250 0
FRUITS AND SEEDS (see also Seeds and Spices)				
Anise, China star pr cwt.	120 0	125 0	87 6	00 0
German, &c. ..	30 0	42 0	26 0	46 0
Beaus, Tonquin .. per lb.	1 0	1 6	1 2	2 4
Cardamoms, Malabar				
good ..	7 6	8 6	5 6	6 0
inferior ..	5 3	7 3	3 9	5 3
Madras ..	5 0	7 9	3 6	5 3
Ceylon ..	2 10	3 3	3 6	3 9
Corozo Nuts..... per cwt.	12 0	20 0	20 0	27 0
Cassia Fistula ..	20 0	32 0	18 0	34 0
Castor Seeds ..	10 0	12 0	10 0	12 0
Cocculus Indicus ..	22 6	25 0	25 0	30 0
Coloeynth, applo. .. per lb.	0 6½	0 11	0 7½	0 11
Croton Seeds .. per cwt.	90 0	105 0	145 0	180 0
Cubebes ..	45 0	46 0	60 0	65 0
Cumin ..	10 0	20 0	16 0	20 0
Dividivi ..	17 0	24 0	12 0	13 6
Fenugreek ..	11 0	12 0	10 0	13 0
Guinea Grains ..	49 0	51 0	58 0	62 0
Juniper Berries ..	0 0	10 0	8 6	10 0
Myrobalans ..	11 9	17 0	10 0	15 0
Nux Vomica ..	15 0	16 0	7 6	10 6
Tamrinds, East India ..	19 0	26 0	25 0	26 0
West India ..	16 0	27 0	12 0	19 0
Vanilla, large per lb.	9 0	14 0	10 0	16 0
inferior ..	4 0	8 0	5 0	14 0
Wormseed .. per cwt.	1 6	0 0	5 5	6 0
GINGER, Preserved, in bond				
(duty 1d. per lb.) per lb.	0 9	1 0	0 10	1 2
GUMS (see separate list)				
HONEY, Narbonne ..	0 0	0 0	50 0	70 0
Cuba ..	25 0	38 0	26 0	41 0
Jamaica ..	20 0	43 0	25 0	55 0
IPEACUANHA ..	7 0	7 3	9 4	9 0
ISINOLASS, Brazil ..	2 4	3 11	2 2	4 4
Tongue sort ..	3 0	4 2	3 3	4 10
East India ..	2 3	4 0	1 10	4 4
West India ..	3 7	4 0	3 0	4 2
Russ, long staple	9 0	10 0	10 0	11 0
" leaf ..	6 0	8 0	8 0	10 6
" Siamovia ..	1 6	2 6	1 9	2 6
JALAP, good ..	4 3	5 0	4 8	5 6
infer. & stems ..	0 0	3 10	0 9	4 6
LEMN JUICE .. per degree	0 0½	0 0½	0 0½	0 0½
LIQUORICE, Spanish per cwt.	65 0	70 0	65 0	75 0
Italian ..	50 0	60 0	50 0	70 0
MANNA, flaky	3 0	4 3	4 0	4 6
small..... per lb.	1 0	1 6	1 10	2 0
MUSK..... per oz.	21 0	38 0	20 0	35 0
OILS (see also separate List)				
Almond, expressed per lb.	1 8	0 0	1 9	0 0
Castor, 1st pale	0 7½	0 7½	0 6½	0 0½
second ..	0 0½	0 7	0 6	0 0½
infer. & dark ..	0 6	0 0½	0 5½	0 6
Bombay (in casks)				
per lb.	0 0	0 0	0 5½	0 6
Cod Liver per gall.	3 6	5 6	4 3	8 0
Croton..... per oz.	1 2	1 6	1 2	1 0
Essential Oils:				
Almond per lb.	37 0	0 0	38 0	0 0

